CHAPTER

27

FLIGHT CONTROLS

CHAPTER 27
FLIGHT CONTROLS

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AILERON - ROLL CONTROL	27-10-01		101	1	Feb 09/2009	ALL
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			102		Mar 31/2005	YC030
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			103		May 11/2009	YC031-YK912 YK918-YK919 YL401-YL429 YM643-YM652
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RUDDER AUTHORITY LIMITER	27-25-11		101		Jul 17/2007	YC001-YC029
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RUDDER POSITION INDICATION SYSTEM						
RUDDER TRIM AND POSITION INDICATION	27-28-11		101		Mar 31/2005	YC001-YC007
			102		Feb 09/2009	YC008-YM670
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ELEVATOR FEEL DIFFERENTIAL PRESSURE	27-31-37		101.1		Mar 31/2005	YC001-YC007
			102		May 11/2009	YC008-YK912 YK918-YK919 YL401-YL429 YM643-YM652
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STALL WARNING SYSTEM 1 POWER AND ANALOGS	27-32-11		101		Jul 17/2007	YC001-YK906
			101.1		May 13/2008	YC001-YC010 YC012-YC025
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			101.1		May 13/2008	YC001-YC010 YC012-YC025
			101.2		May 13/2008	YC026-YC030
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HORIZONTAL STABILIZER TRIM CONTROL	27-41-11		101.1	1	Jul 26/2006	YC001-YC011
				2	May 11/2009	YC001-YC011
			102	1	Jul 17/2007	YC012-YC030
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			103	1	May 11/2009	YK901-YK912 YK918-YK919 YL401-YL429
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			104	1	May 11/2009	YM643-YM652
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HIGHLIFT SYSTEM OVERVIEW	27-50-01		101	1	Jan 14/2008	YC001-YK906 YM643-YM670
				2	Jan 14/2008	YC001-YK906 YM643-YM670
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TRAILING EDGE UNCOMMANDED MOTION PROTECTION	27-51-11		101		Feb 09/2009	ALL
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TRAILING EDGE FLAP POSITION INDICATION	27-52-11		101		Feb 09/2009	ALL
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ALTERNATE TRAILING AND LEADING EDGE FLAP DRIVE	27-53-11		101.1		Jul 17/2007	YC001-YC007
			102		Feb 09/2009	YC008-YM670
TRAILING EDGE ALTERNATE FLAP DRIVE	27-53-12		101		May 11/2009	YC001-YK912 YK918-YK919 YL401-YL429 YM643-YM652
TRAILING EDGE FLAP SKEW DETECTION	27-53-21		101	1	Feb 09/2009	ALL
				2	Feb 09/2009	ALL
FLAP LOAD LIMIT						
TE FLAP LOAD RELIEF	27-54-11		101		Aug 13/2008	YC001-YK906 YM652-YM670
			102		Feb 09/2009	YK907-YL430
			103		Aug 13/2008	YM643-YM651
SPOILER, DRAG DEVICES, AND VARIABLE AERODYNAMIC FAIRINGS						
FLIGHT CONTROL AND GROUND SPOILER	27-60-01		101	1	Jul 17/2007	YC001-YK906
				2	Jul 17/2007	YC001-YK906
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			102		Aug 13/2008	YC031-YC050 YM643-YM651
			103		Feb 09/2009	YK907-YK910 YK918
			104		Feb 09/2009	YK911-YK917 YK919-YL401
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SPEEDBRAKE AUTOSTOW	27-62-41		101		Feb 09/2009	YC001-YC050
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27-81-31	LEADING EDGE FLAPS AND SLATS MASTER INDICATION
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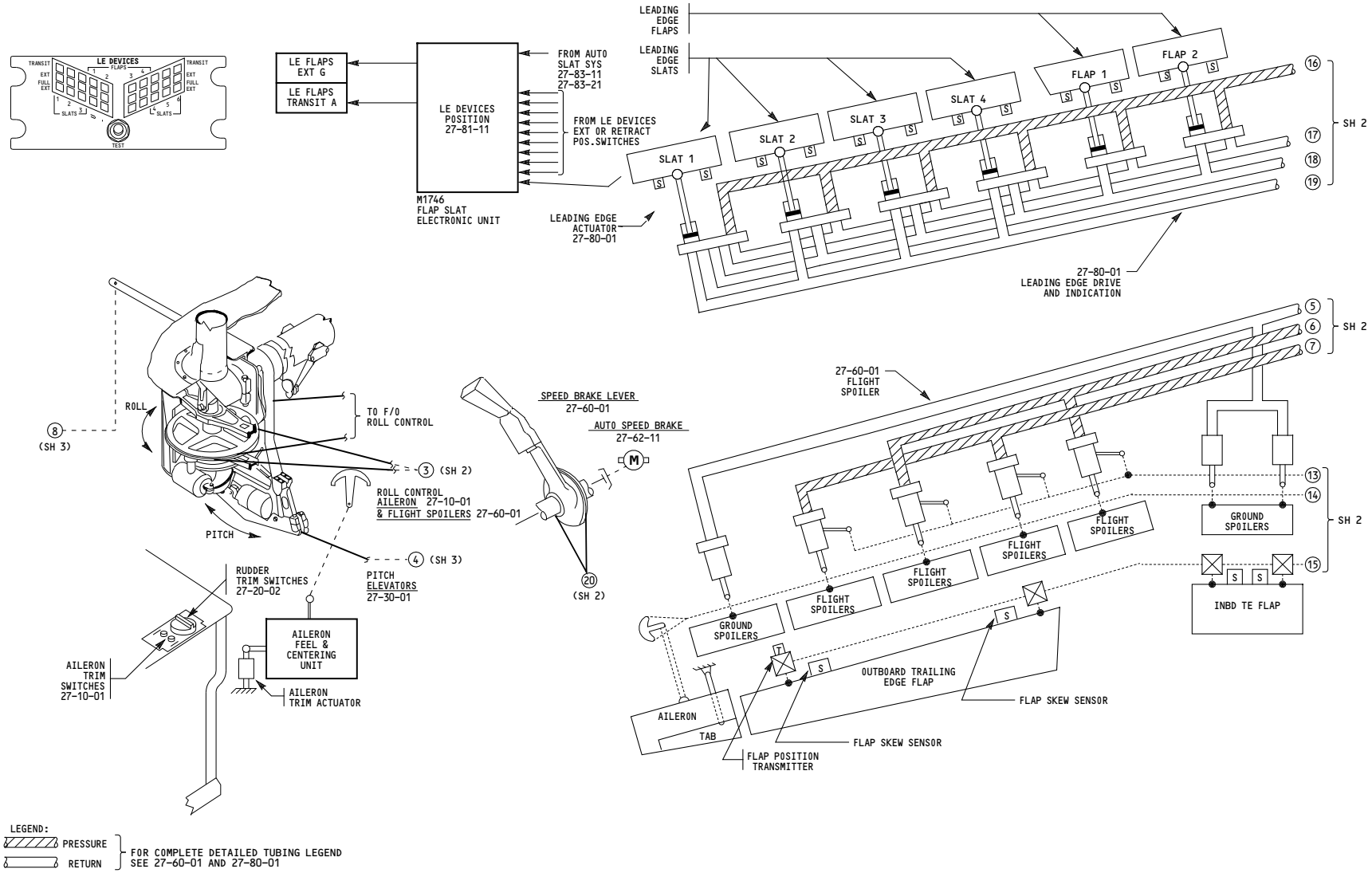

ALL	FLIGHT CONTROLS - SIMPLIFIED
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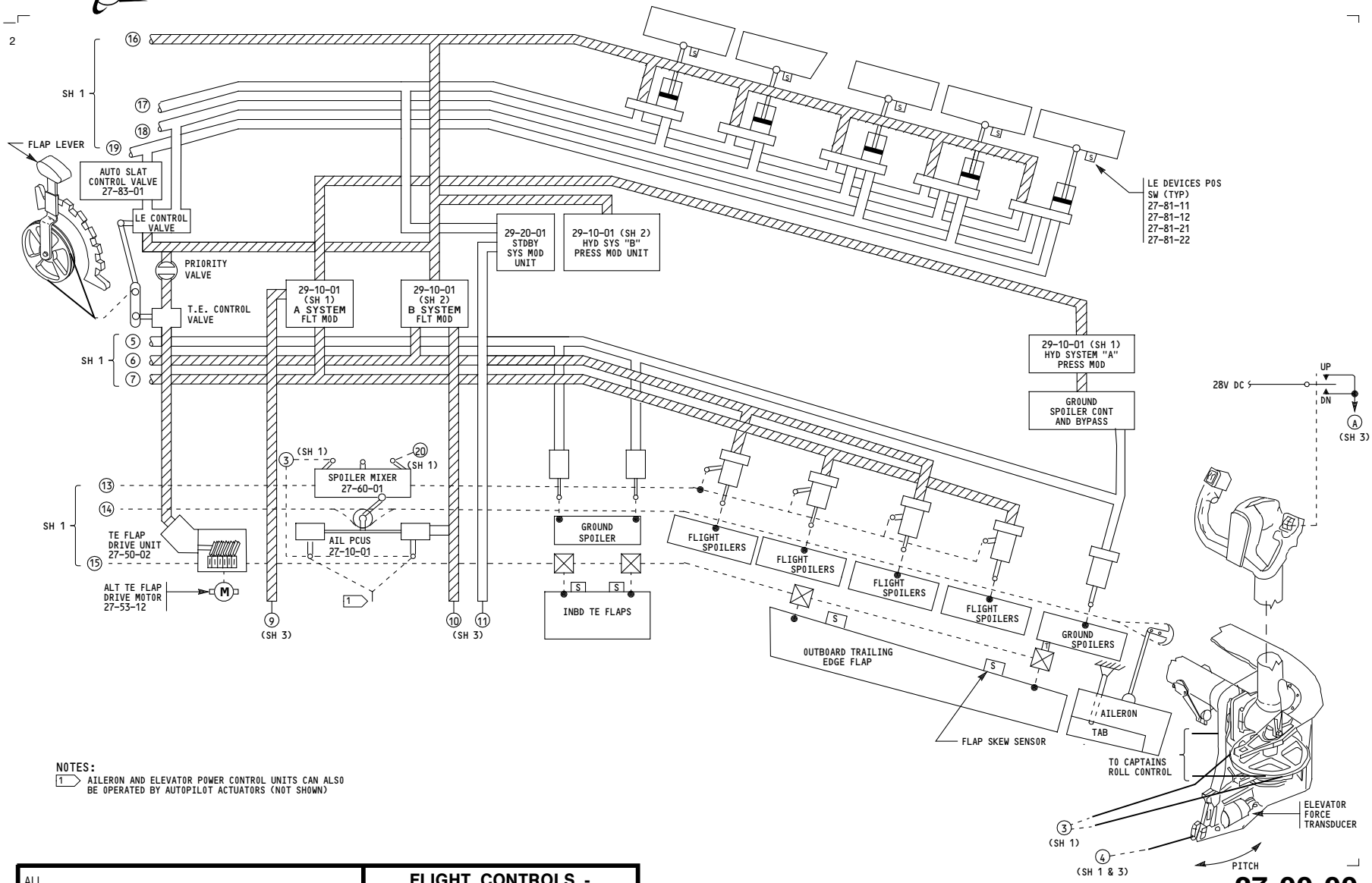

NOTES:
1. AILERON AND ELEVATOR POWER CONTROL UNITS CAN ALSO BE OPERATED BY AUTOPILOT ACTUATORS (NOT SHOWN)

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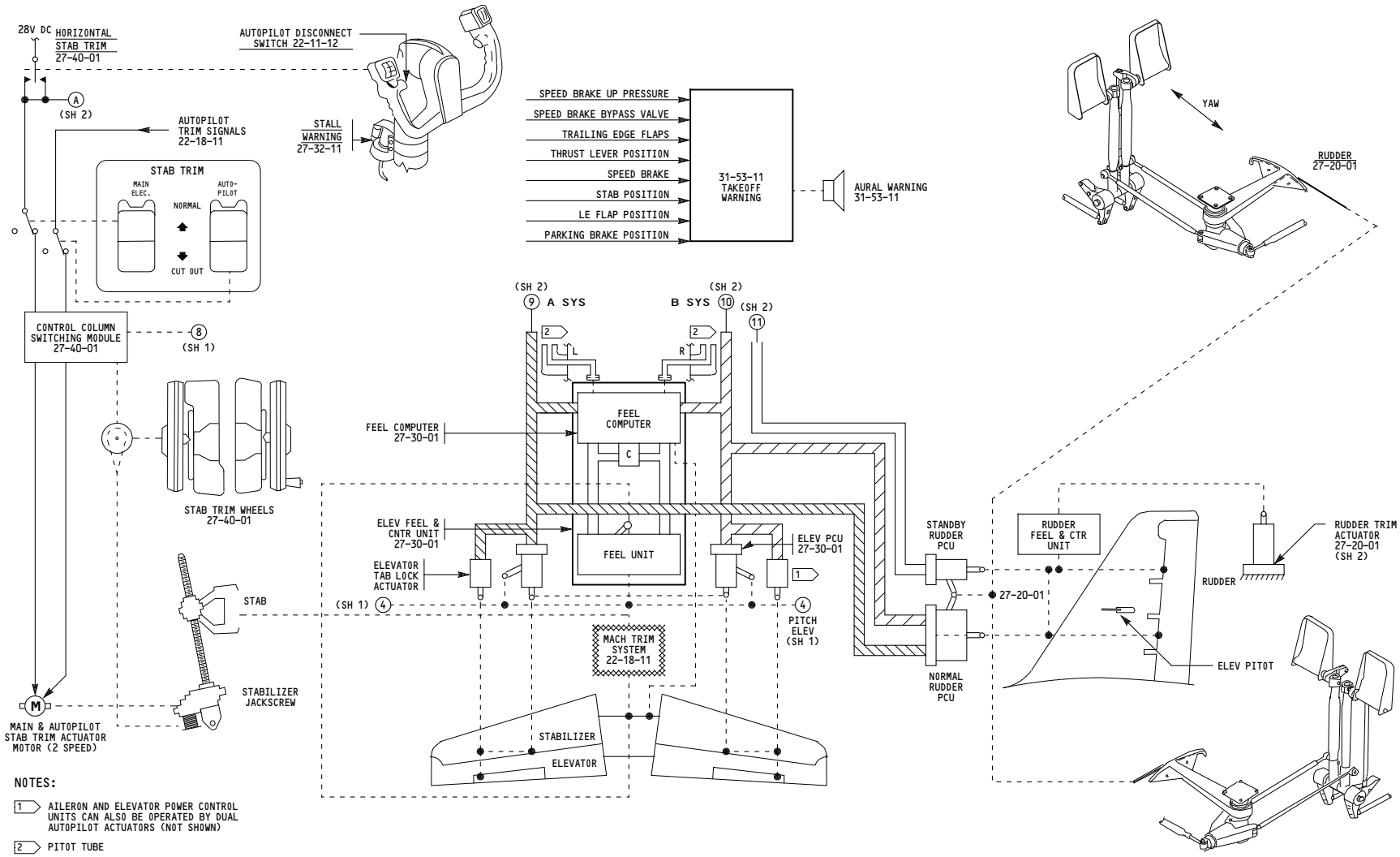

NOTES:

1 AILERON AND ELEVATOR POWER CONTROL UNITS CAN ALSO BE OPERATED BY DUAL AUTOPILOT ACTUATORS (NOT SHOWN)

2 PITOT TUBE

ALL	**FLIGHT CONTROLS - SIMPLIFIED**
	D280A203

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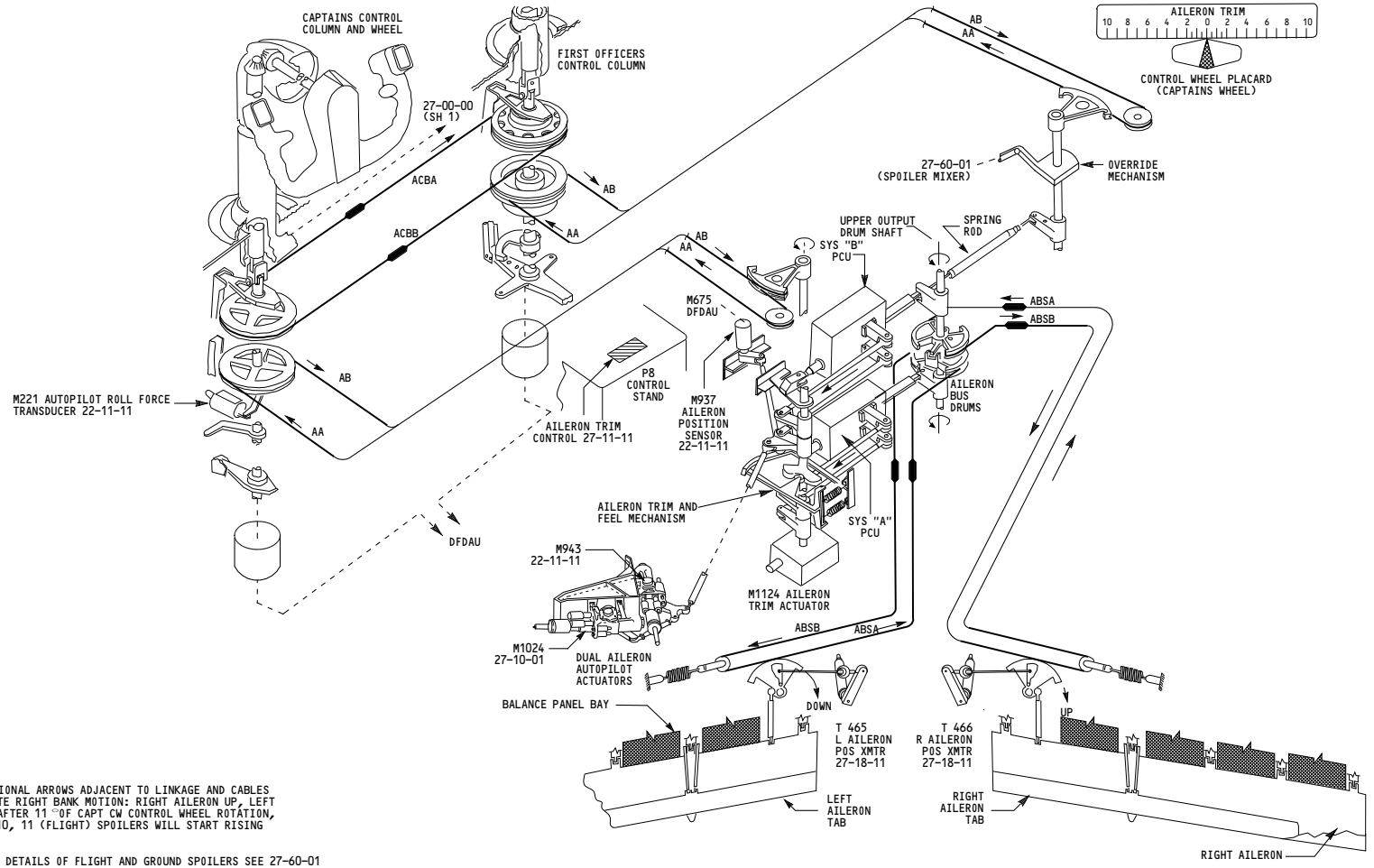

NOTES:

1. DIRECTIONAL ARROWS ADJACENT TO LINKAGE AND CABLES INDICATE RIGHT BANK MOTION: RIGHT AILERON UP, LEFT DOWN, AFTER 11 °OF CAPT CW CONTROL WHEEL ROTATION, 8, 9, 10, 11 (FLIGHT) SPOILERS WILL START RISING

2 FOR DETAILS OF FLIGHT AND GROUND SPOILERS SEE 27-60-01

3 AILERON TRIM ACTUATOR REPOSITIONS CAM ROLLER ARM AND CENTERING SPRING. PILOTS CONTROL WHEEL NEUTRAL WILL SHIFT AS A FUNCTION OF ACTUATOR POSITION.

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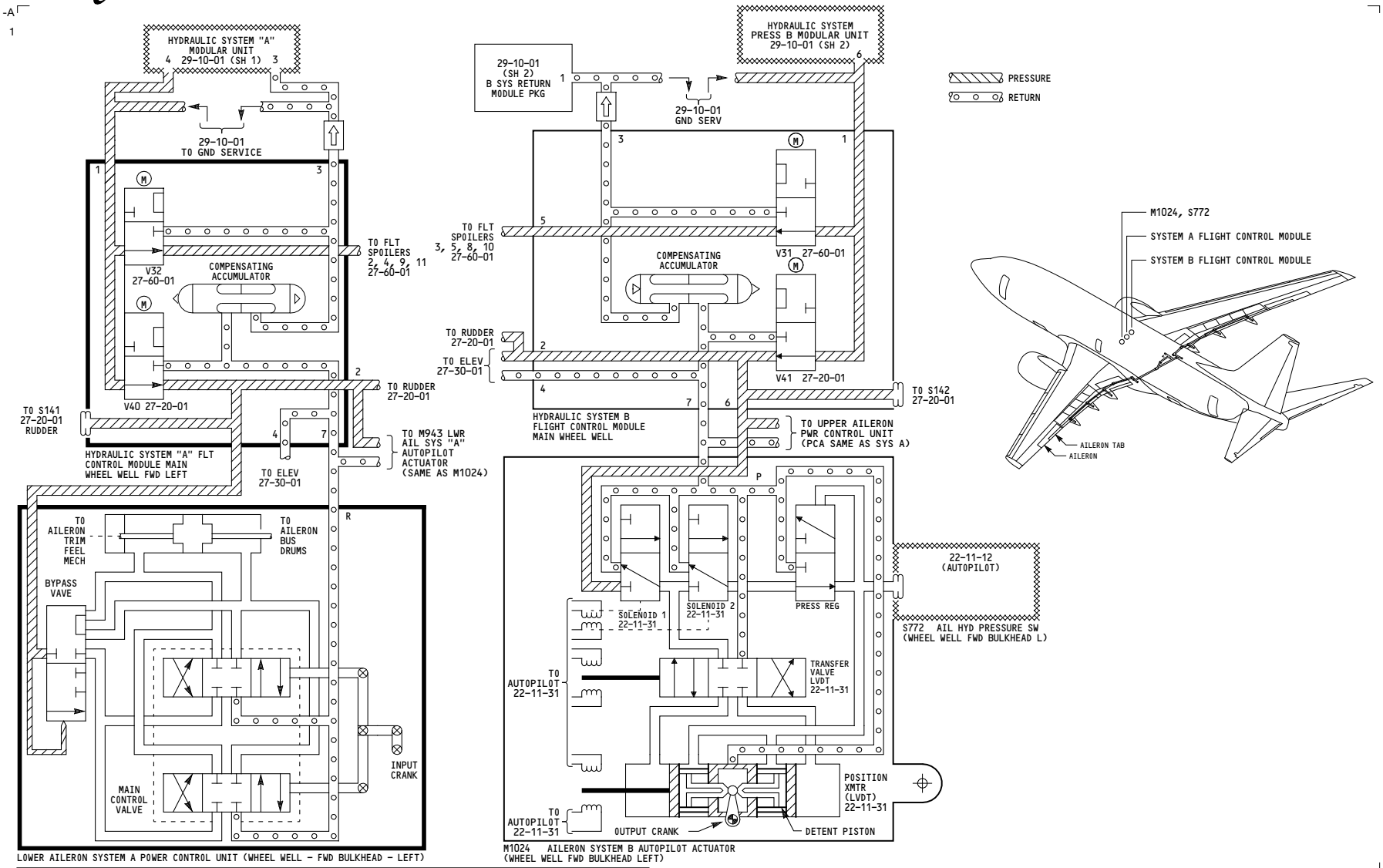

ALL

AILERON - ROLL CONTROL

D280A203

27-10-01

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Sheet 2
Feb 09/2009

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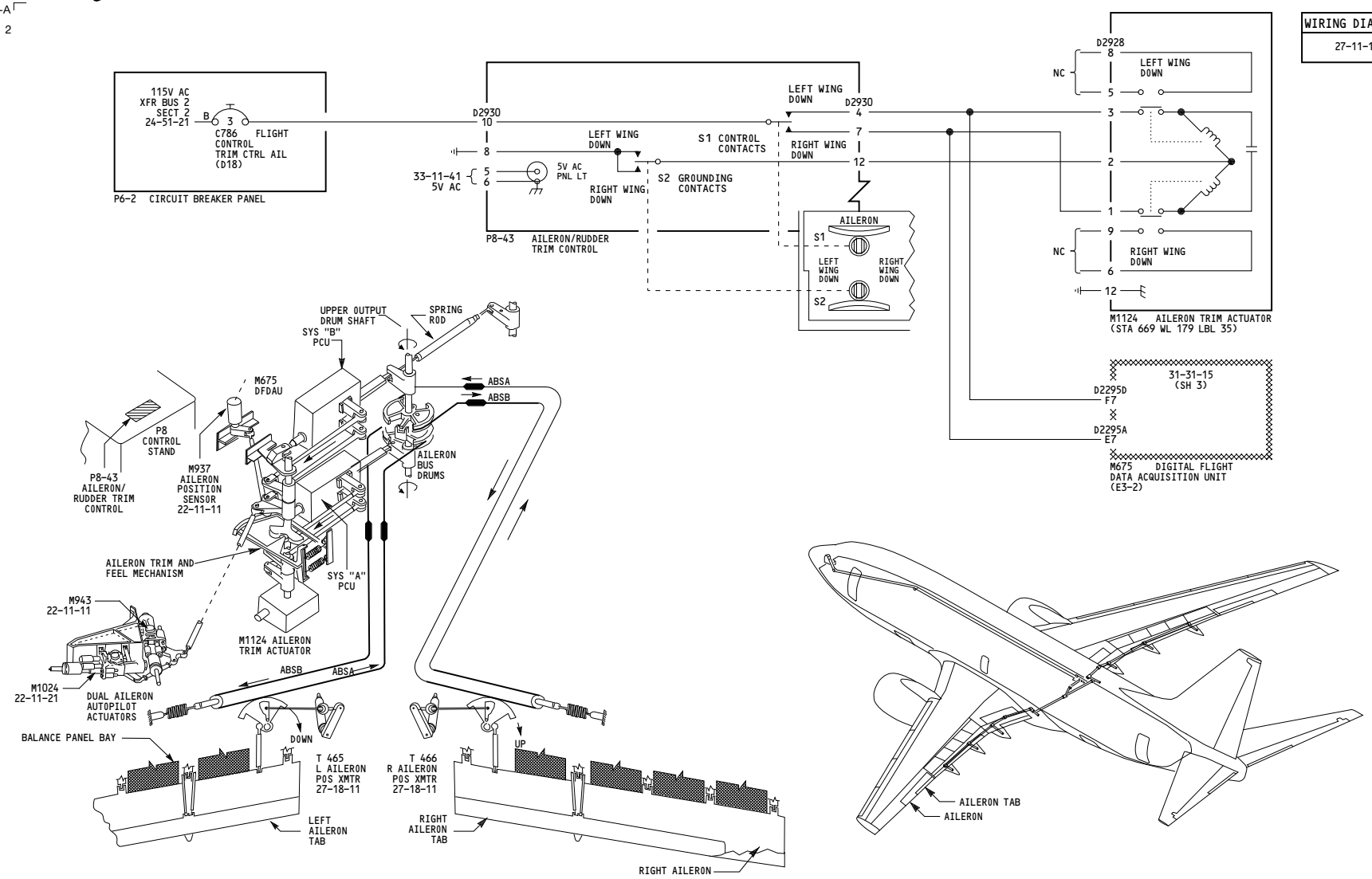

YC001-YC030	AILERON TRIM CONTROL
	D280A203

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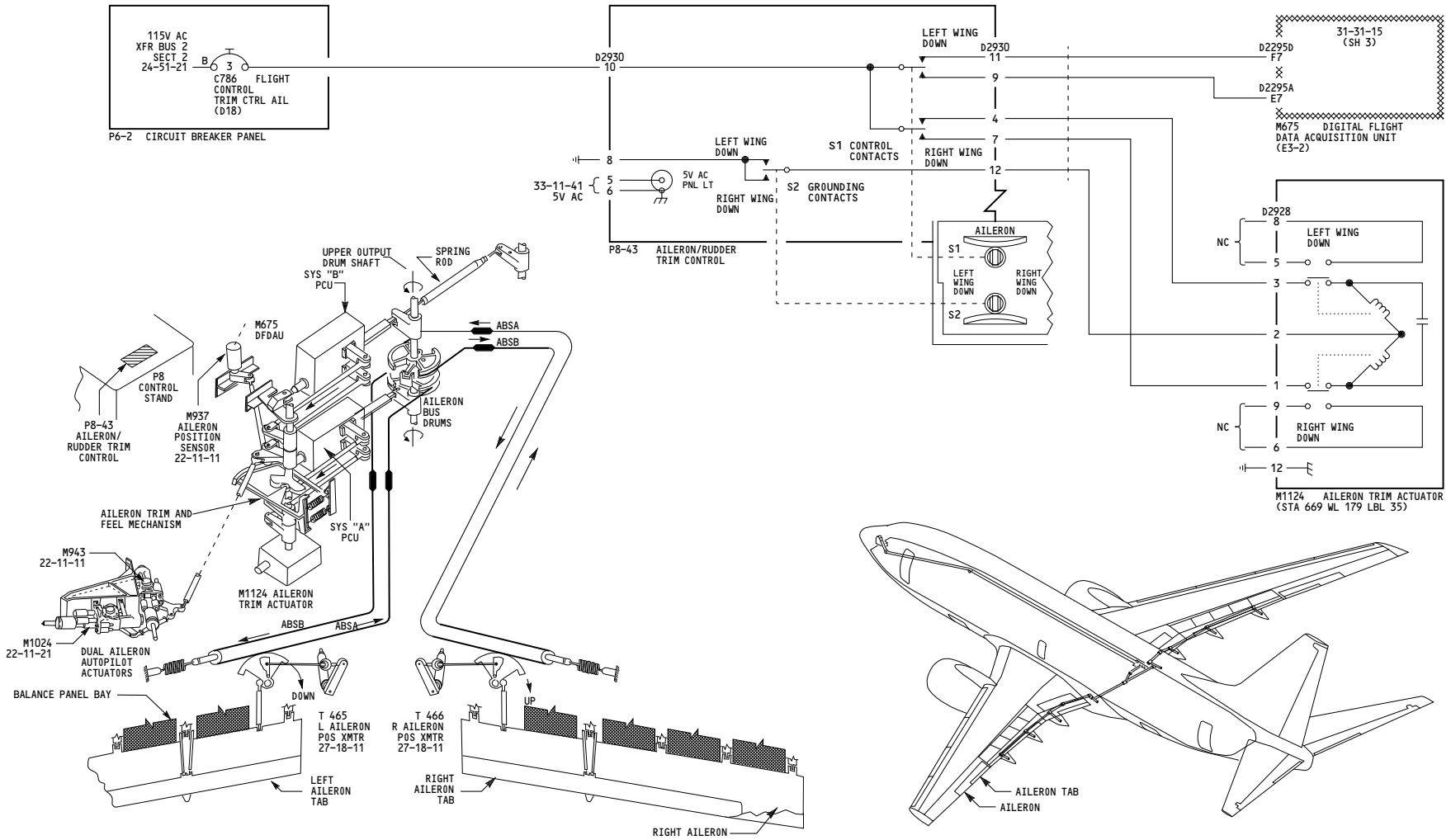
WIRING DIAGRAMS
27-11-11



YC031-YC050, YM643-YM670	**AILERON TRIM CONTROL**
	D280A203

27-11-11

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Jan 14/2008

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WIRING DIAGRAMS
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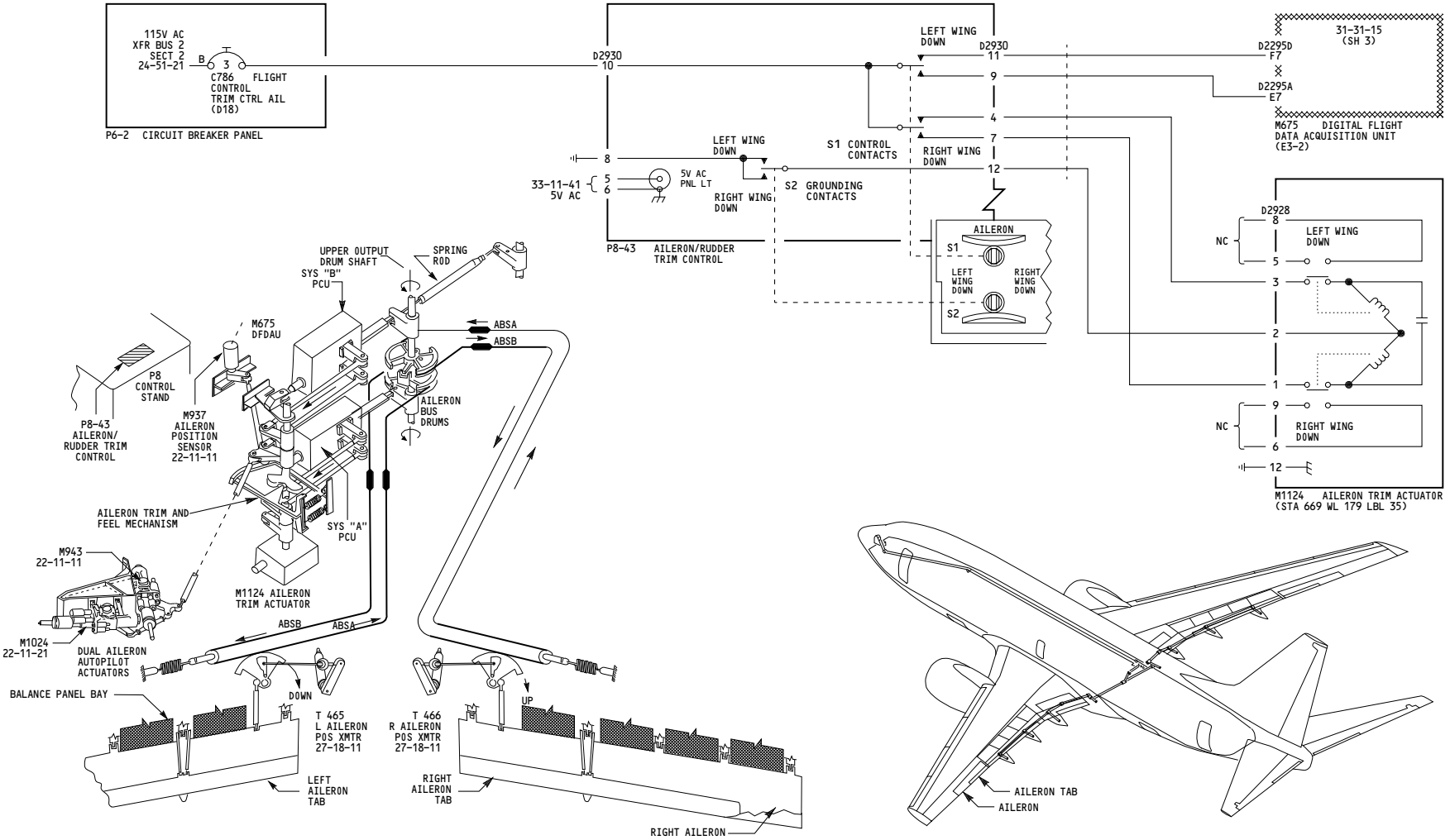

YK901-YL430	AILERON TRIM CONTROL
	D280A203

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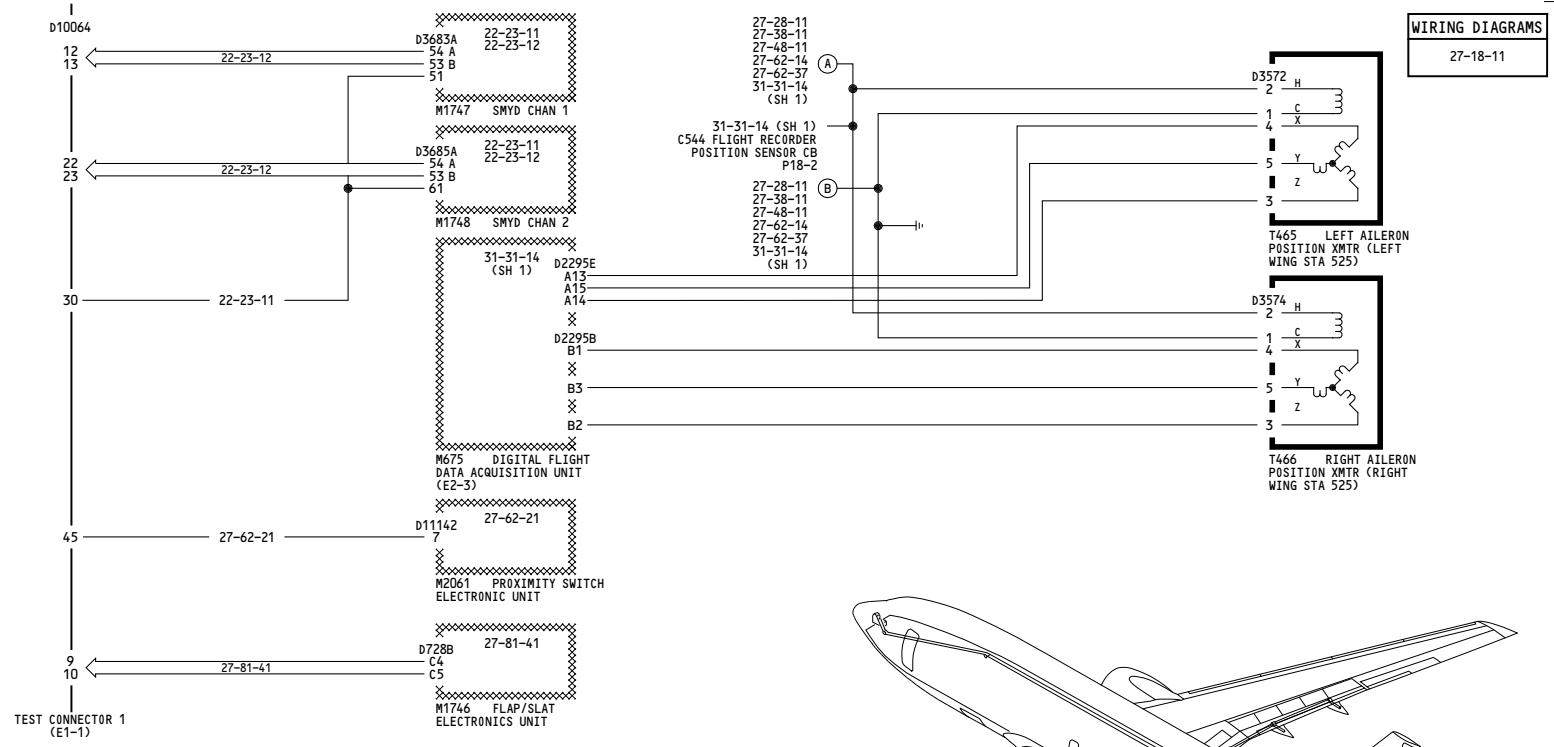

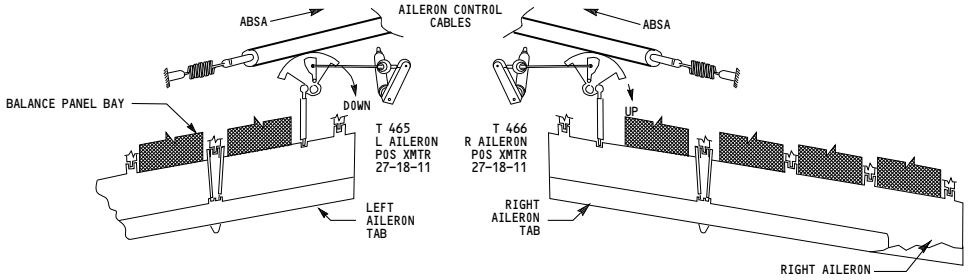

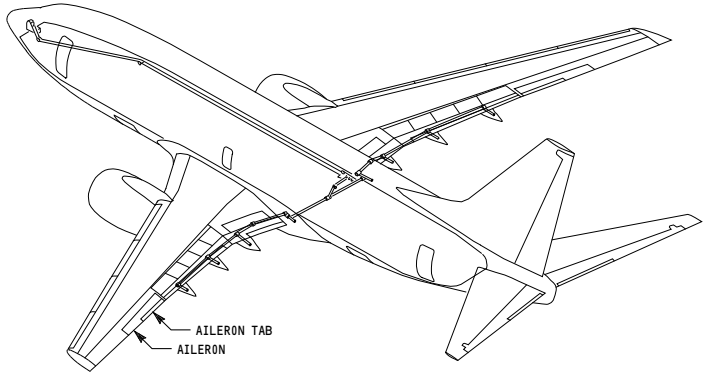

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AILERON POSITION INDICATION

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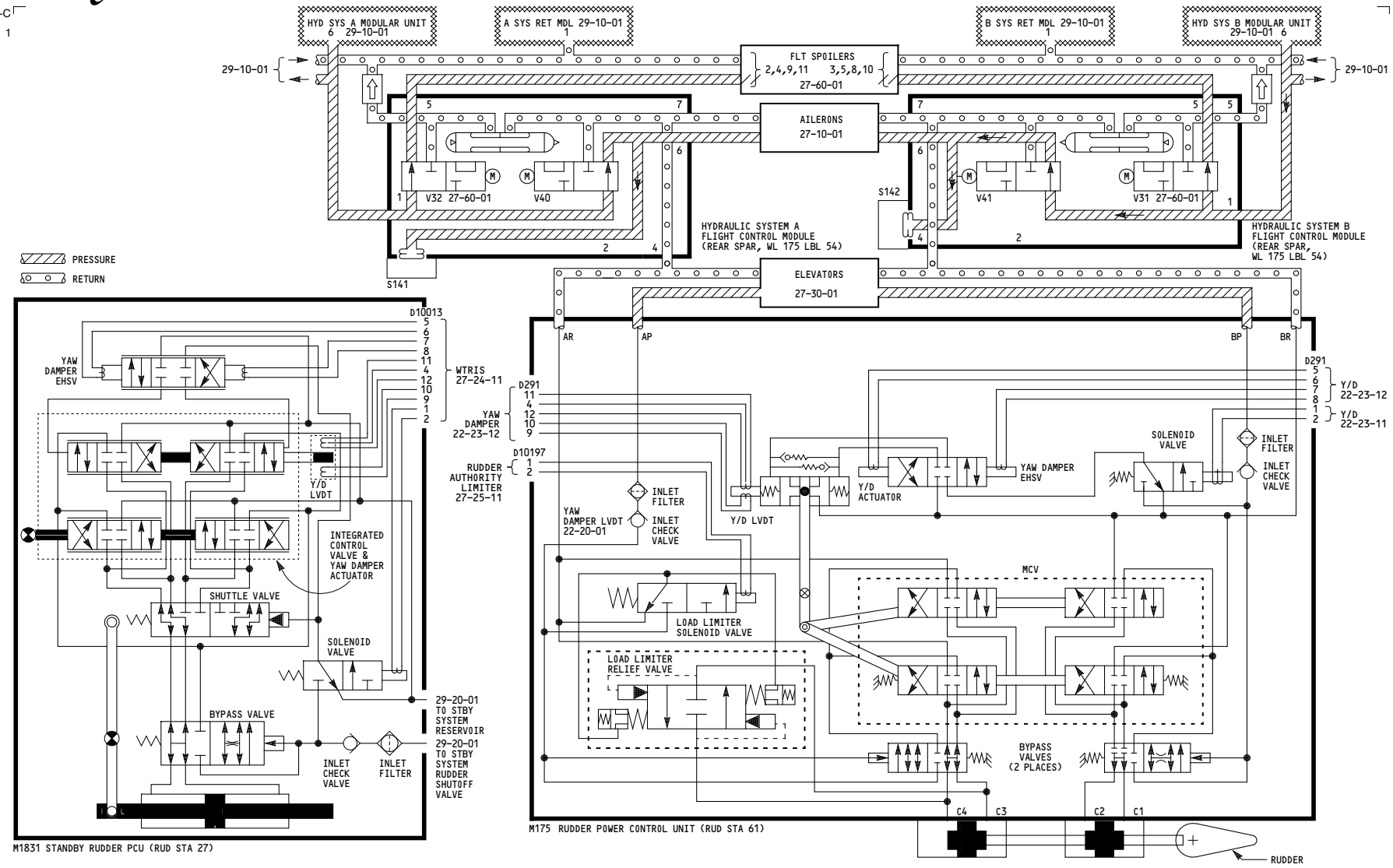

YC001-YC030	**RUDDER**
	D280A203

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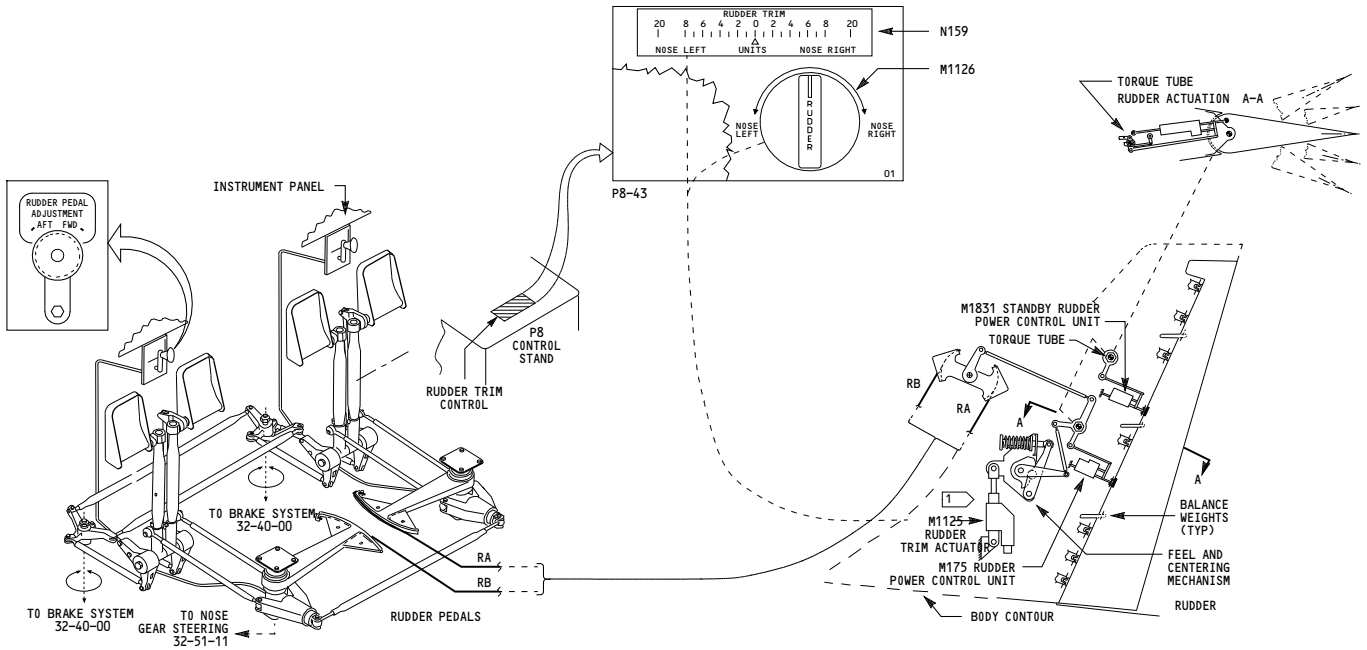

NOTES:

1. FOR ELECTRICAL CONNECTION DETAILS SEE:
   27-21-11 FOR M1125, M1126
   27-28-11 FOR N159
   22-23-12 FOR M175

YC001-YC030	**RUDDER**
	D280A203

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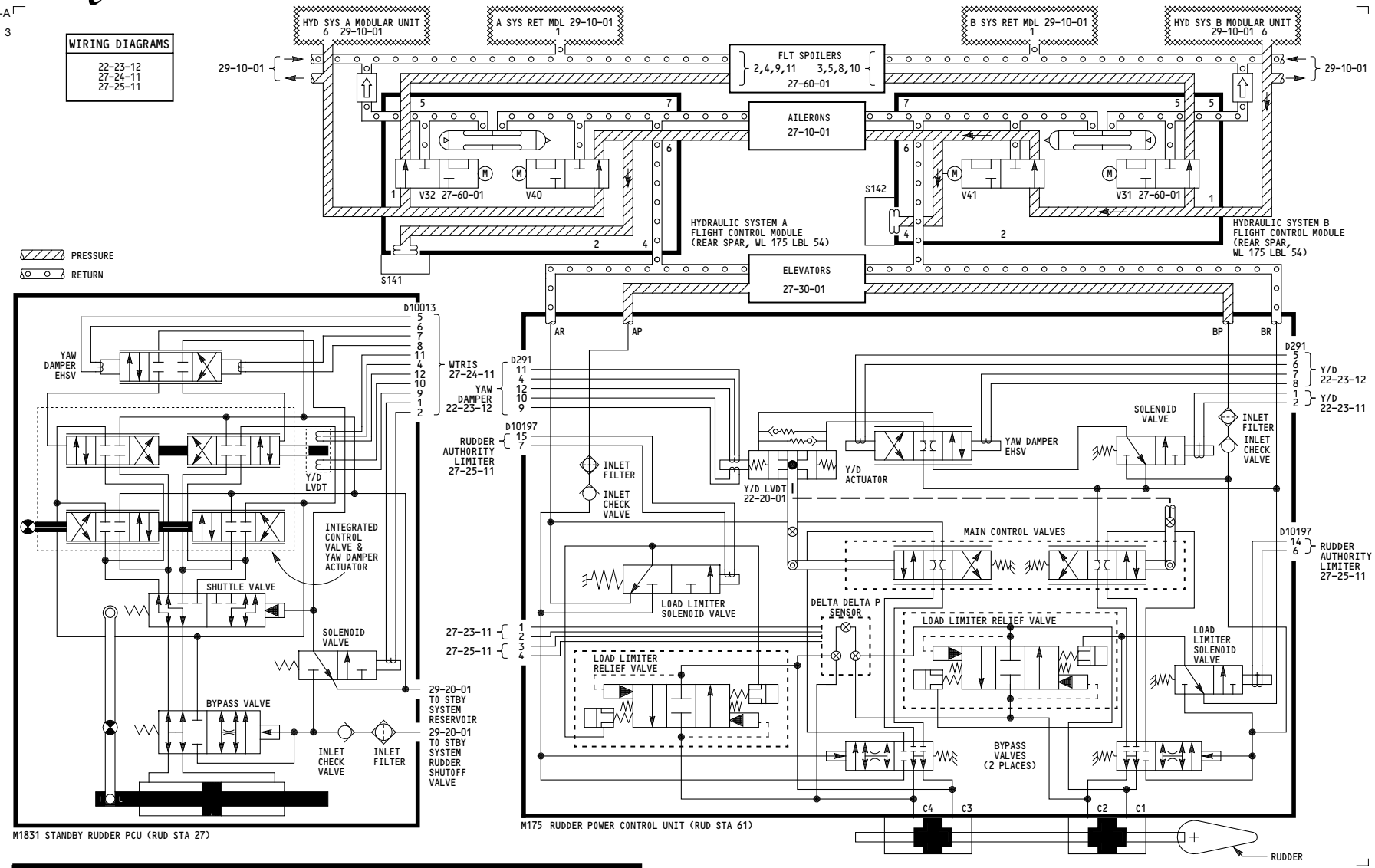
WIRING DIAGRAMS

22-23-12
27-24-11
27-25-11



YK901-YM670	**RUDDER**
	D280A203

27-20-01

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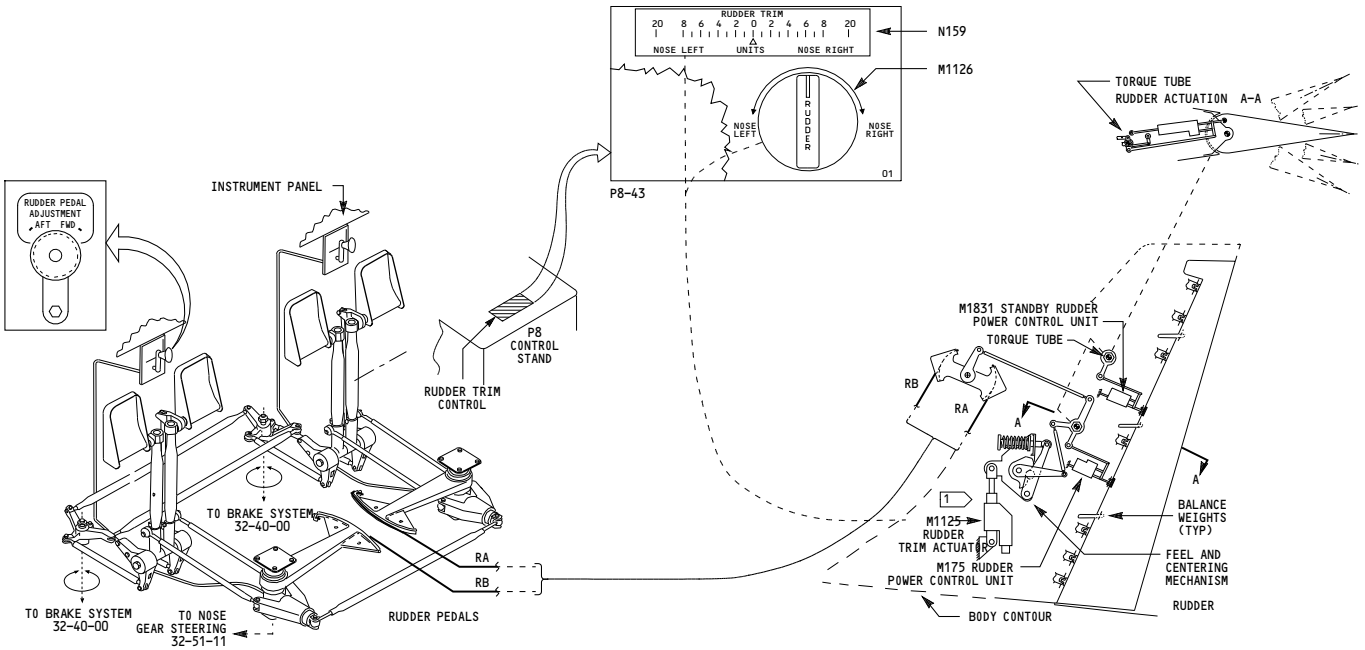

NOTES:

1. FOR ELECTRICAL CONNECTION DETAILS SEE:
   27-21-11 FOR M1125, M1126
   27-28-11 FOR N159
   22-23-12 FOR M175

YK901-YM670	**RUDDER**
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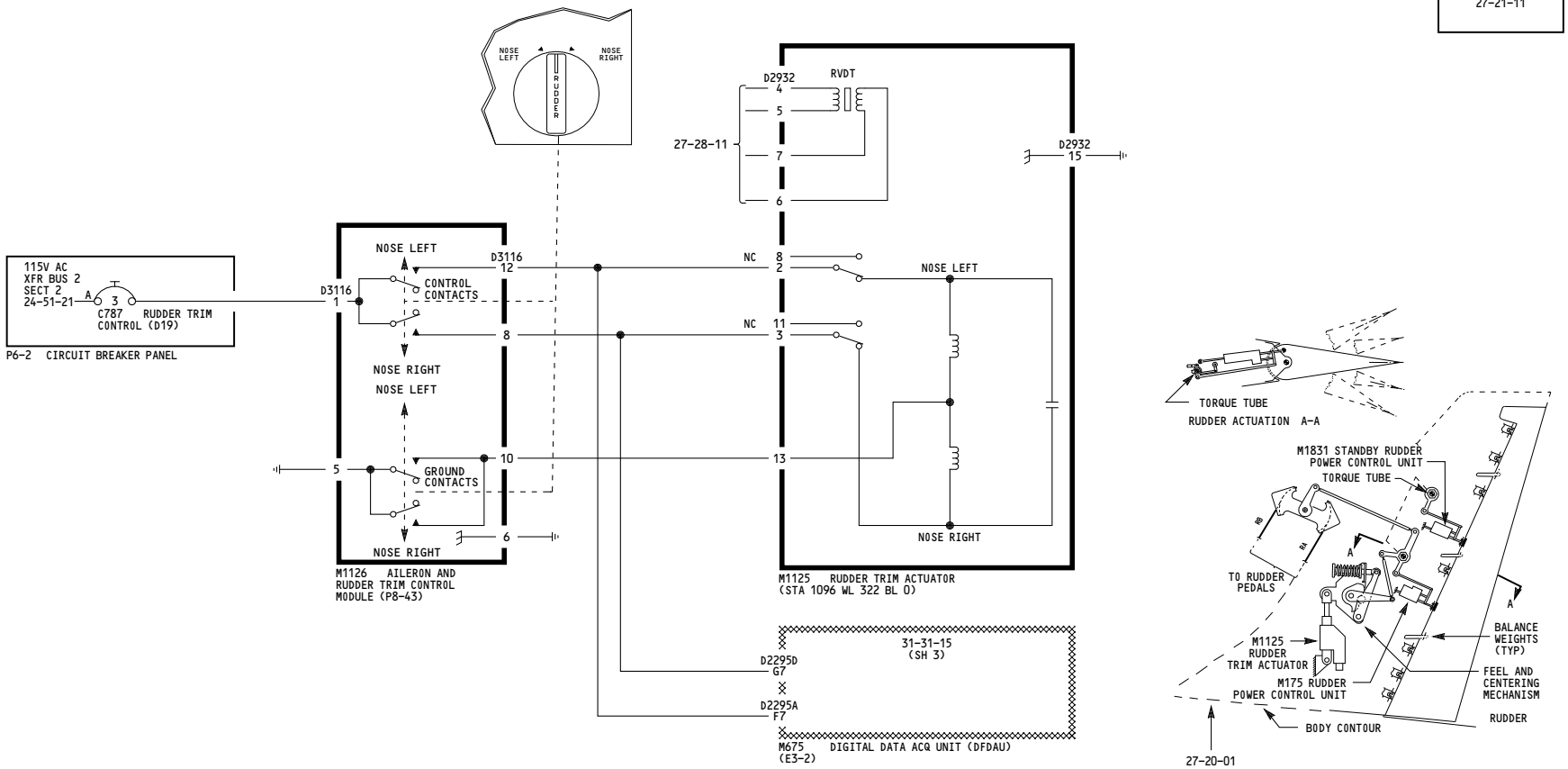

YC001-YC030	RUDDER TRIM CONTROL
	D280A203

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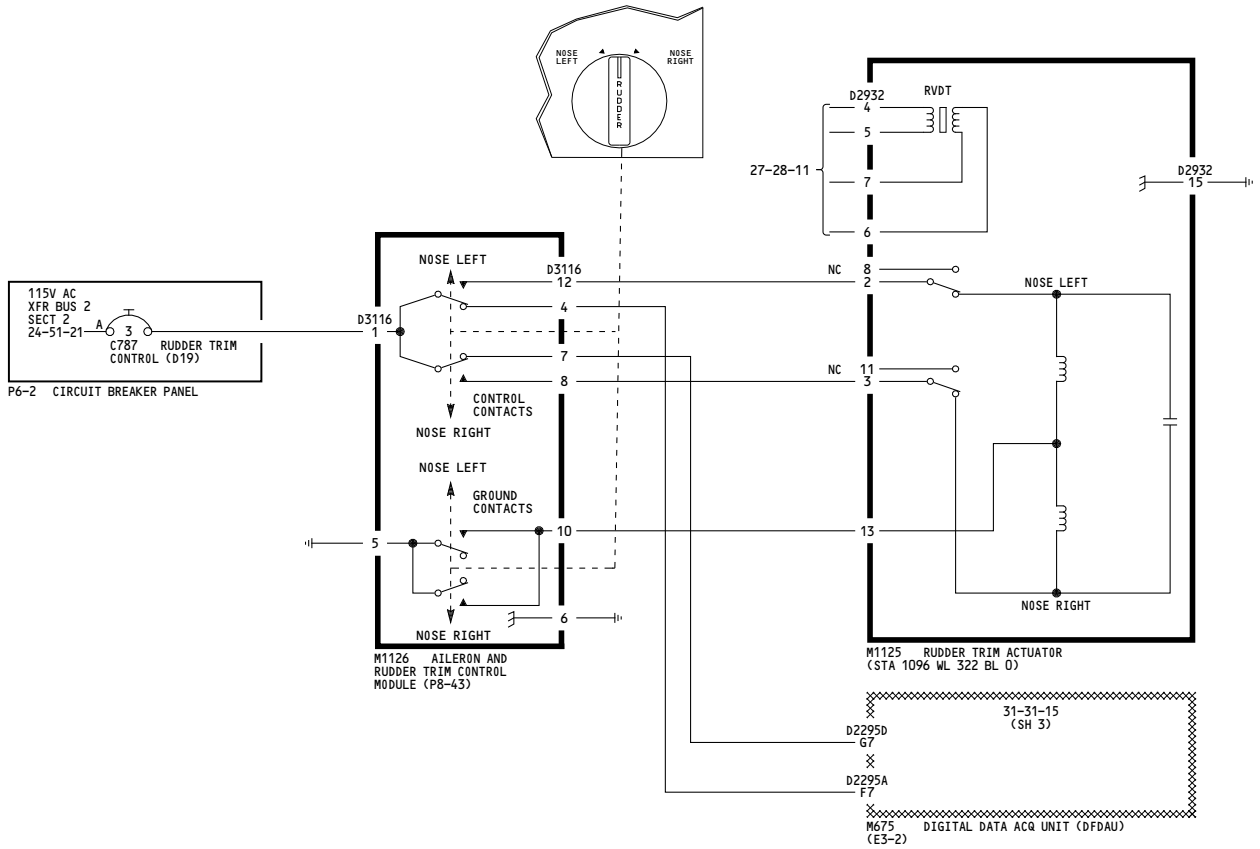

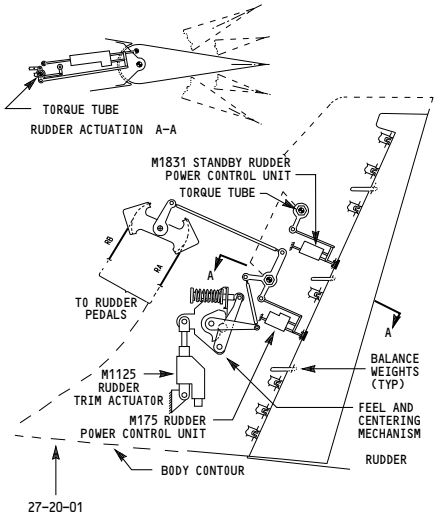

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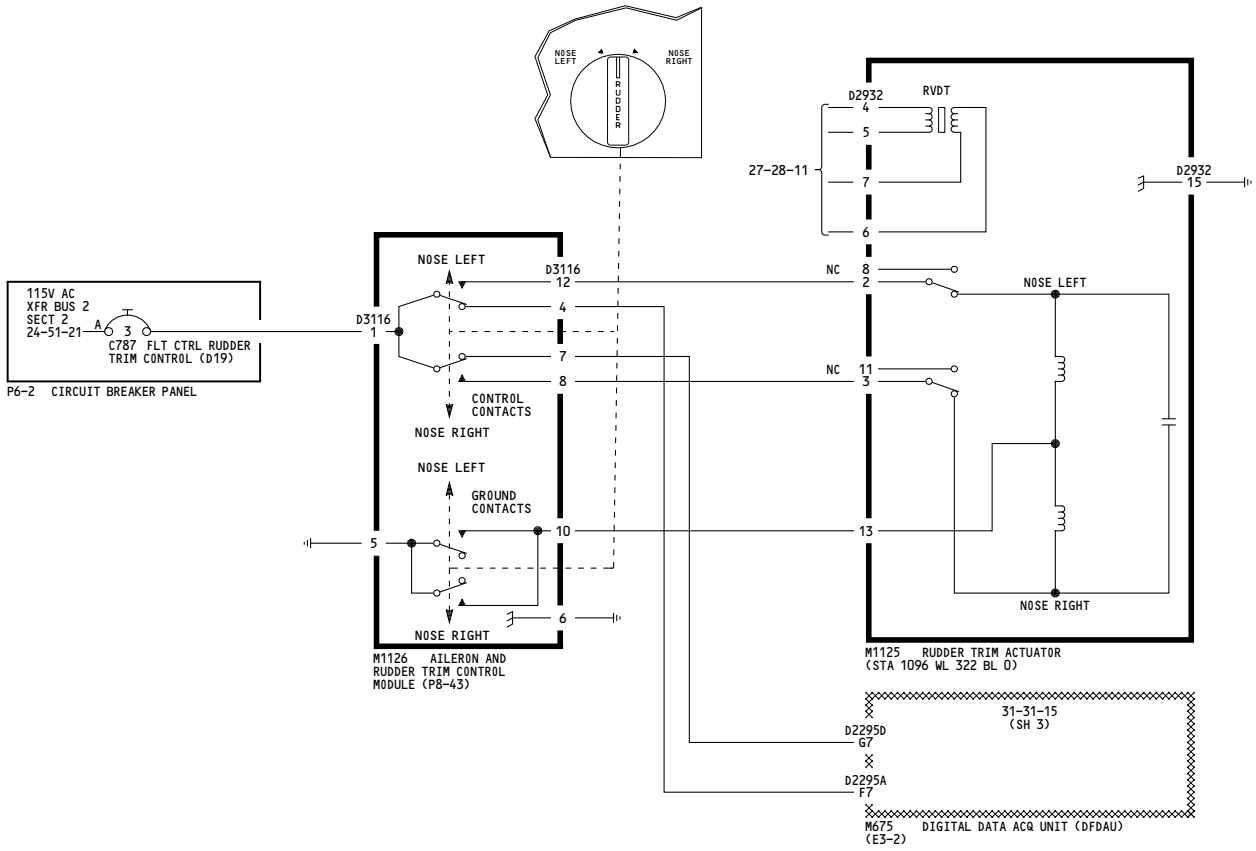

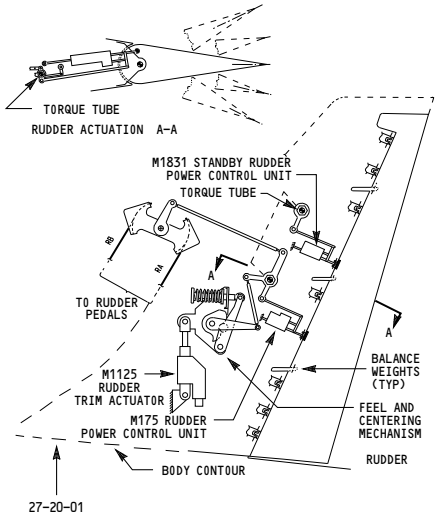

YK901-YL430	RUDDER TRIM CONTROL
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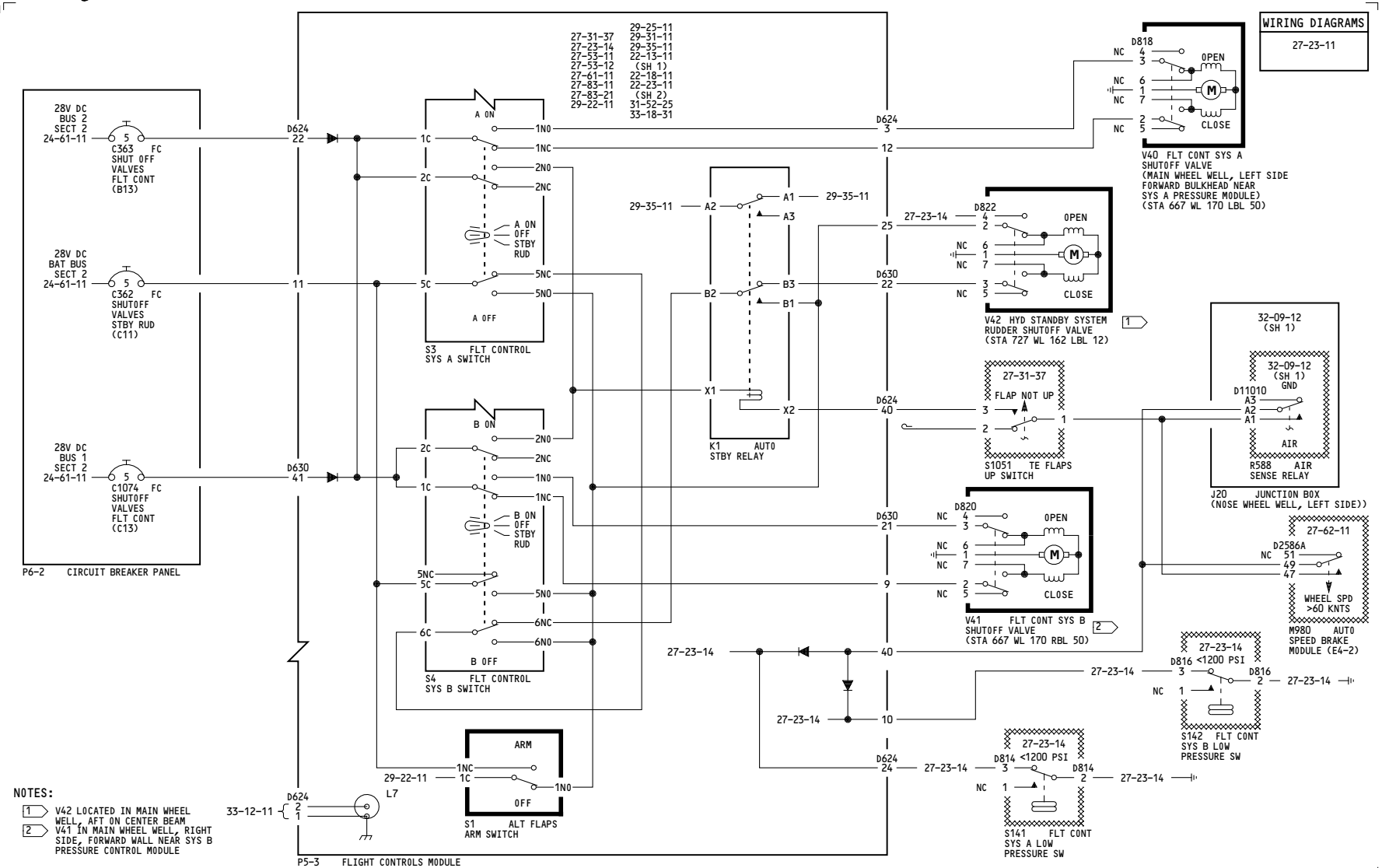

YC001-YC029

FLIGHT CONTROL SYS "A" SYS "B", AND STANDBY RUDDER CONTROL

D280A203

27-23-11

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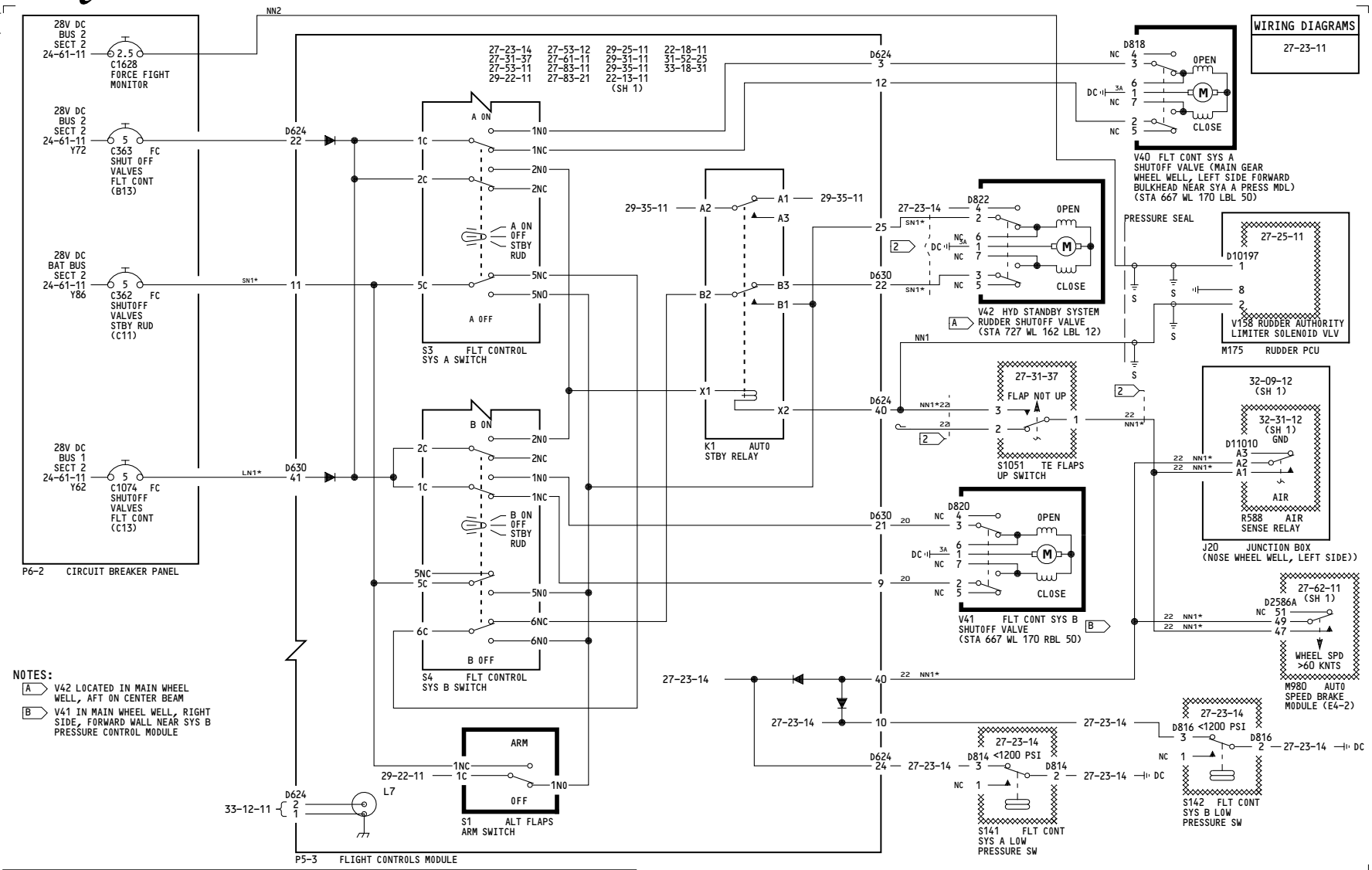

YC001-YC029

FLIGHT CONTROL SYS "A" SYS "B", AND STANDBY RUDDER CONTROL

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Incorporates
27-1247
27-1253 R03

27-23-11

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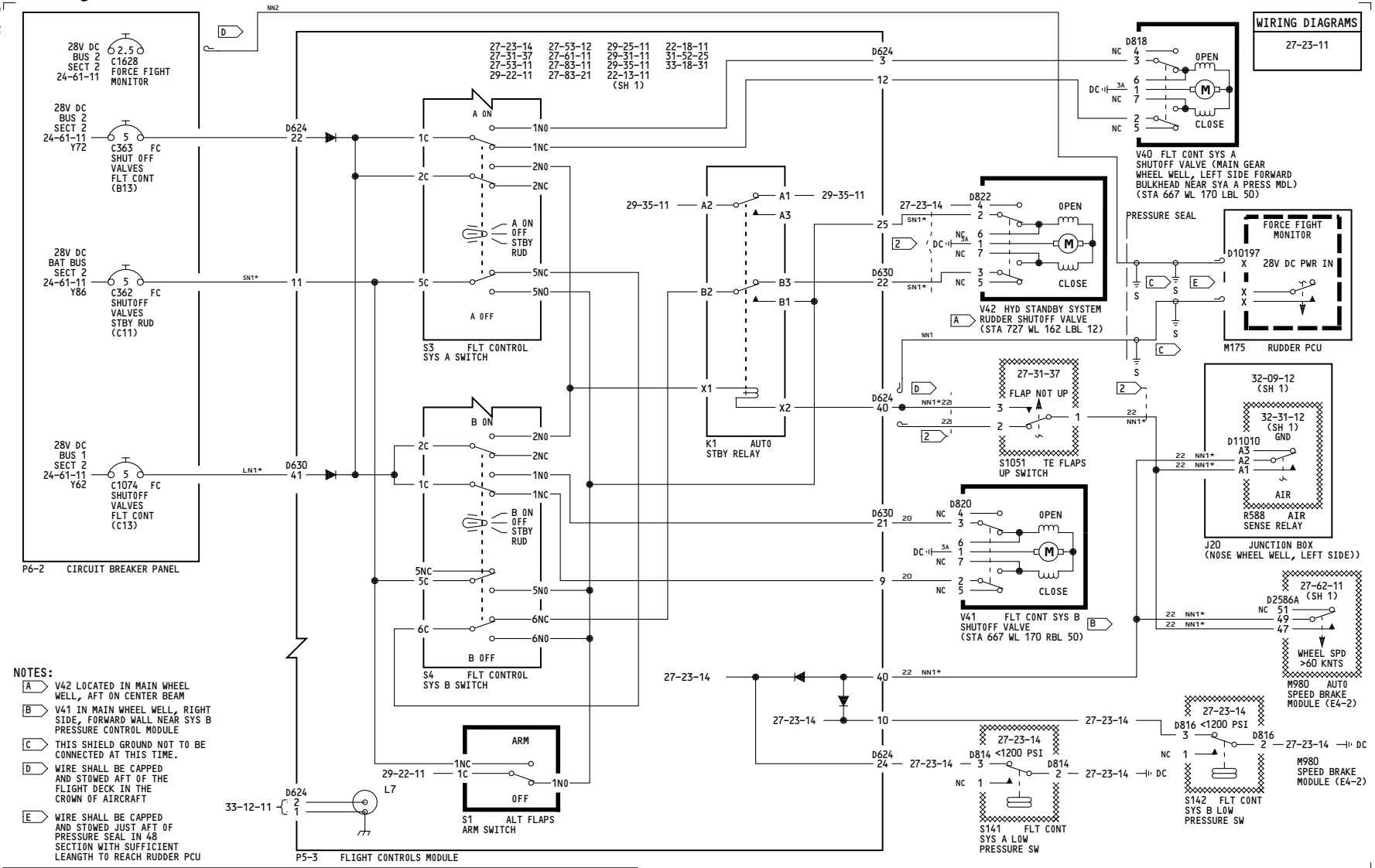

YC030

FLIGHT CONTROL SYS "A" SYS "B", AND STANDBY RUDDER CONTROL

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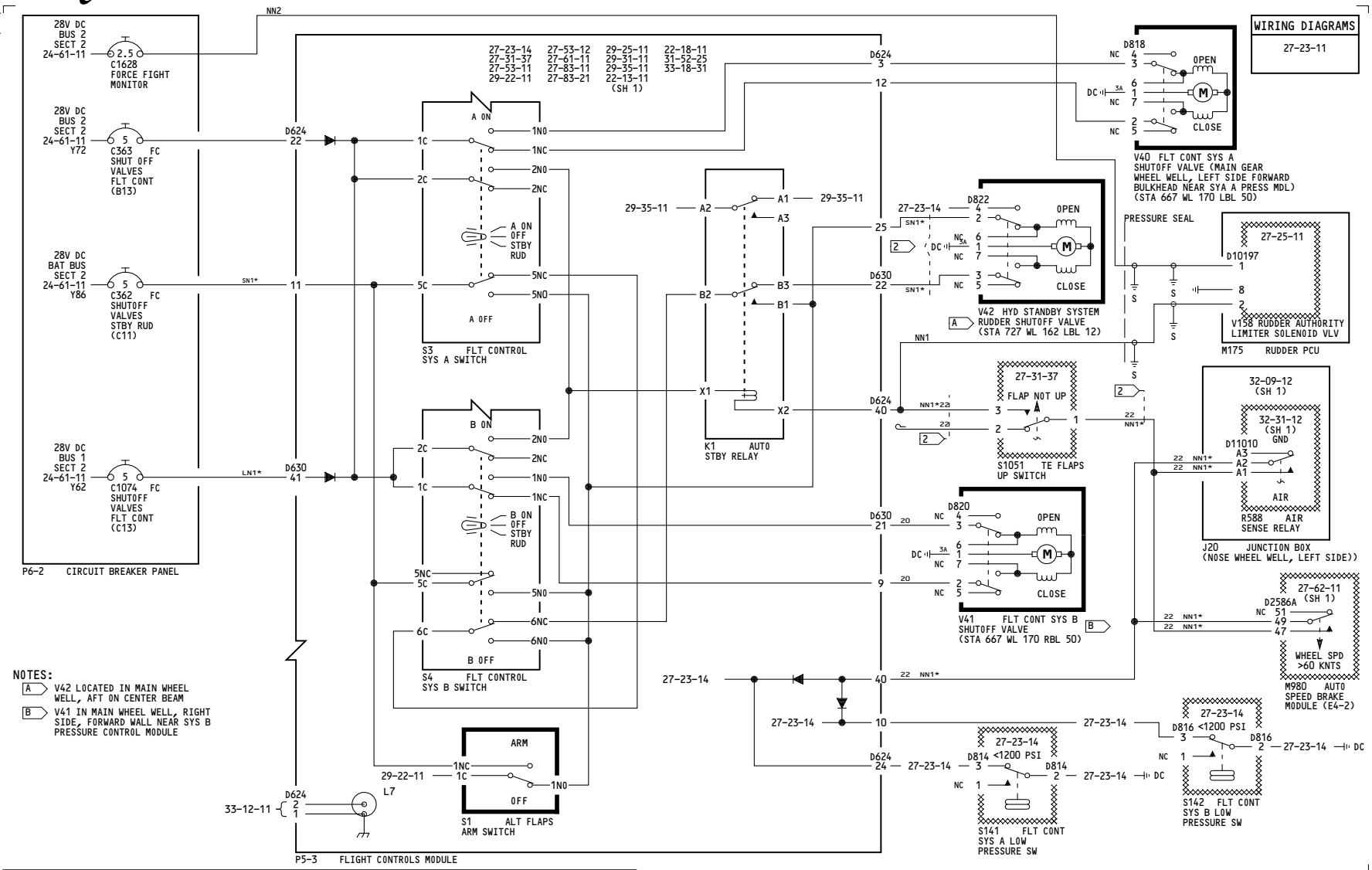

YC030

FLIGHT CONTROL SYS "A" SYS "B", AND STANDBY RUDDER CONTROL

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Incorporates
27-1253 R03

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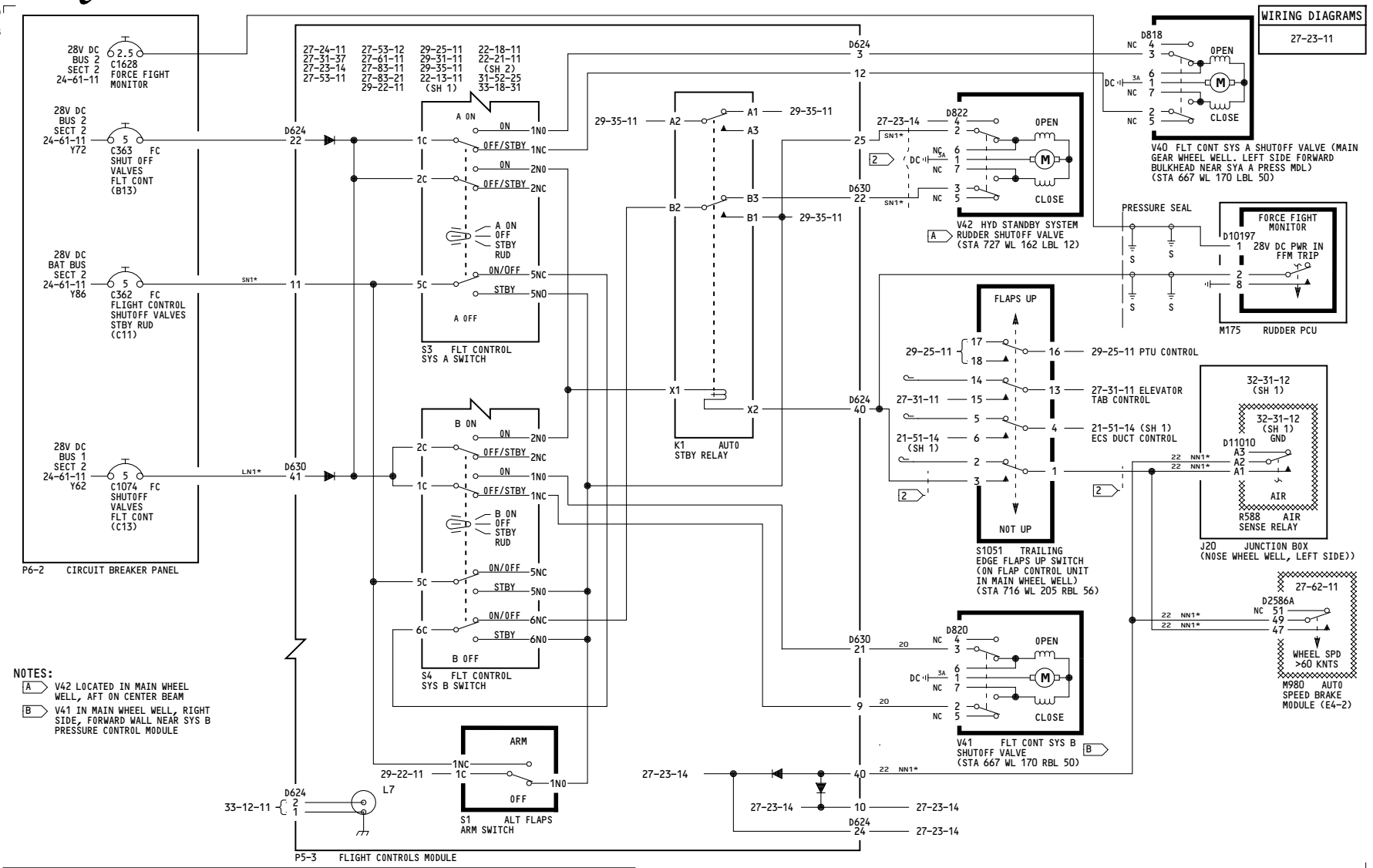

YC031-YK912, YK918-YK919, YL401-YL429, YM643-YM652

FLIGHT CONTROL SYS "A" SYS "B", AND STANDBY RUDDER CONTROL

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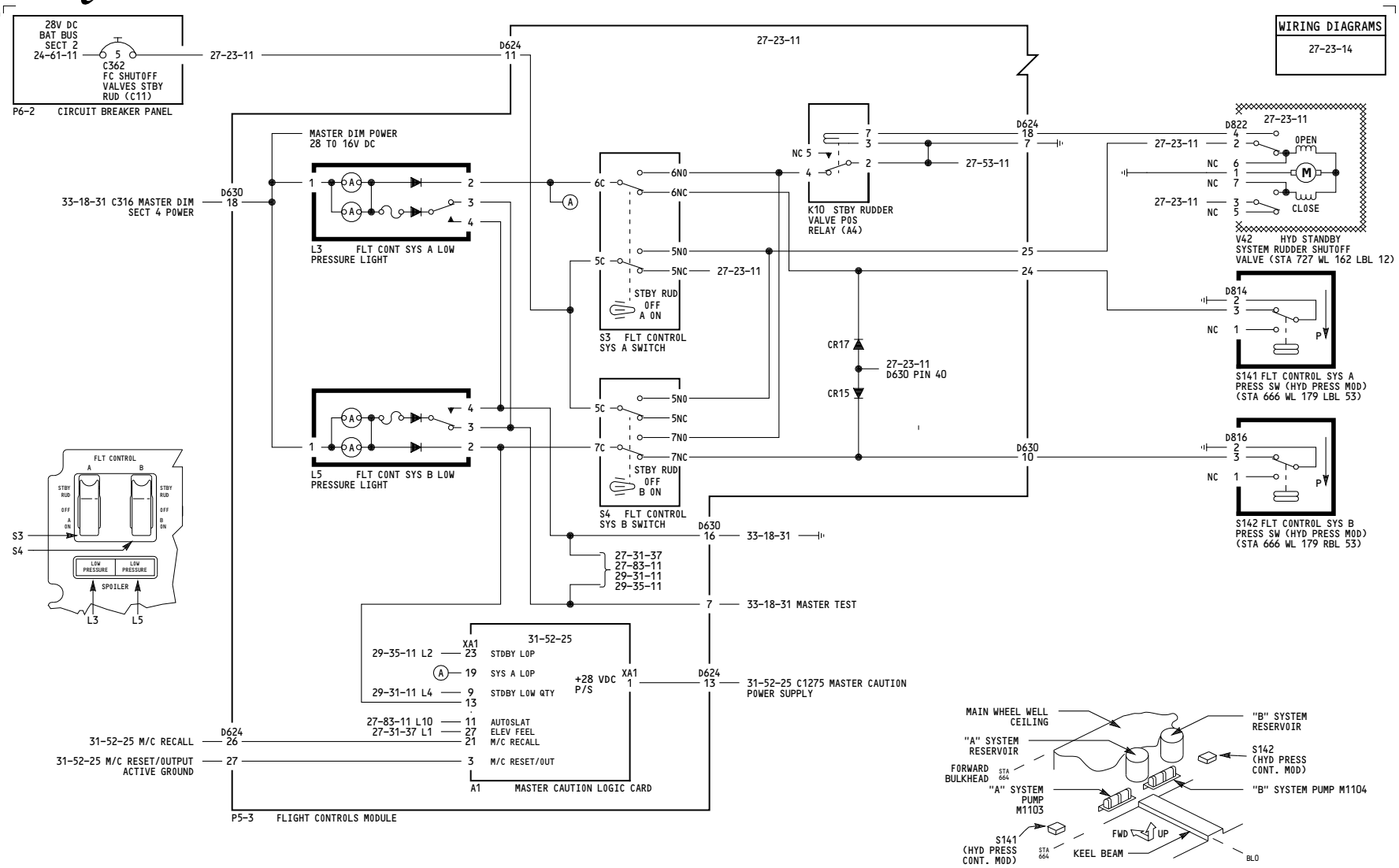

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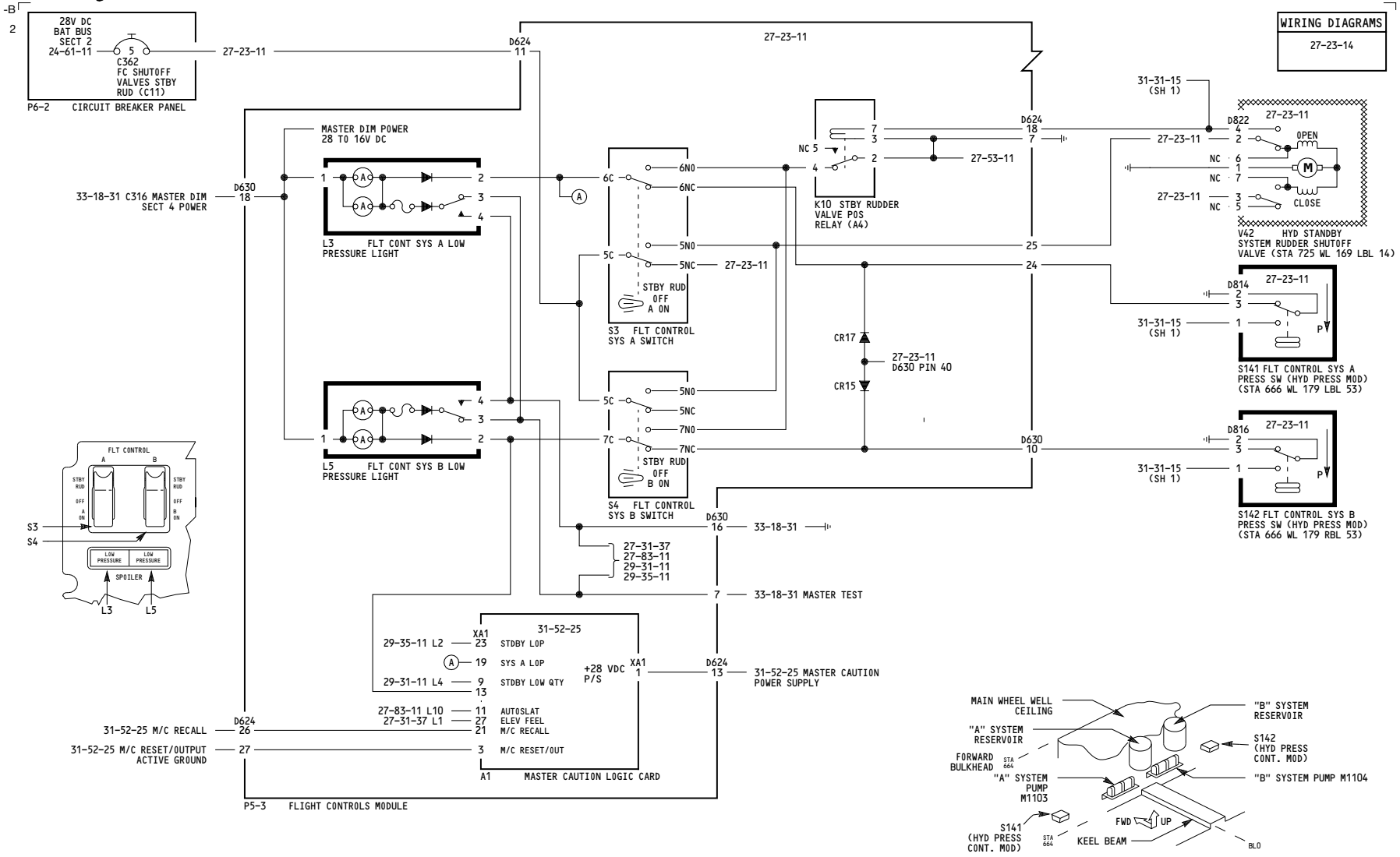

YC020-YM670

FLIGHT CONTROL SYS "A" AND SYS "B" LOW PRESSURE INDICATION

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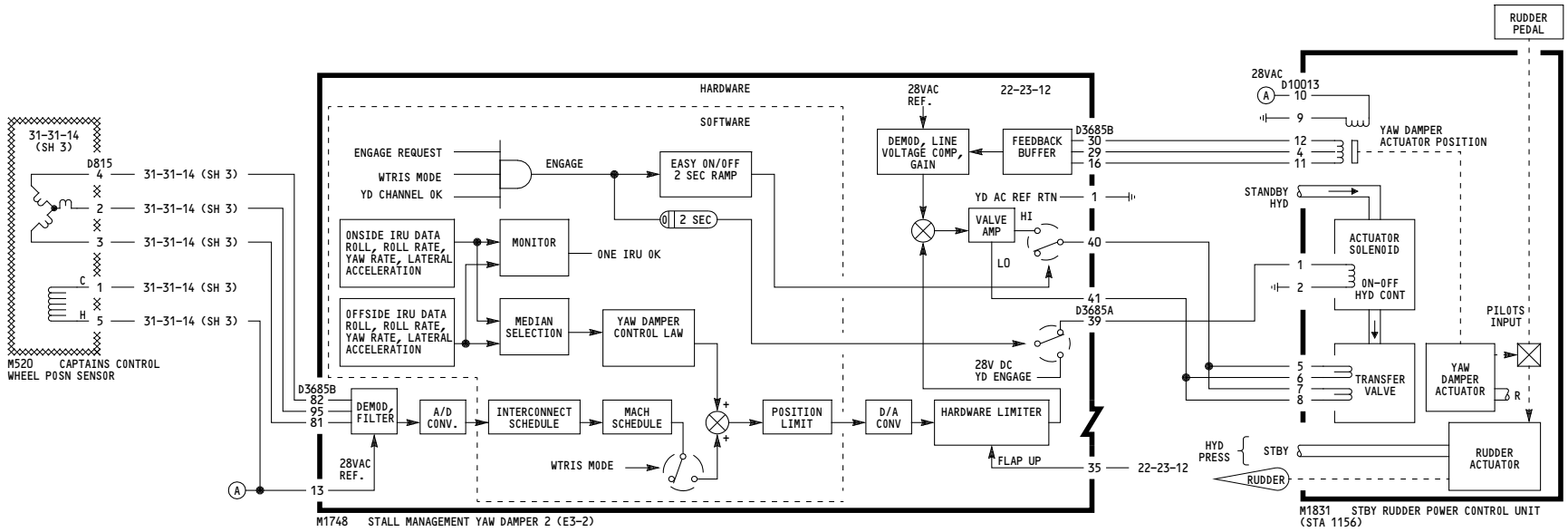

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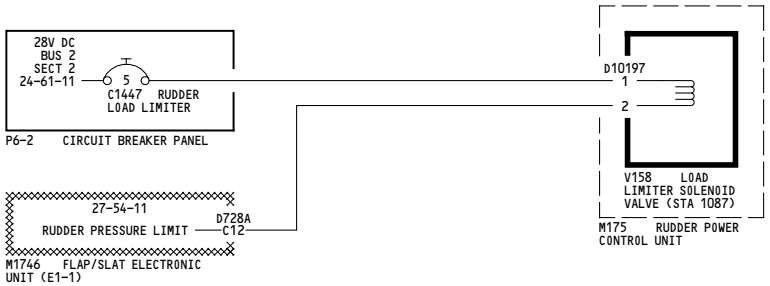

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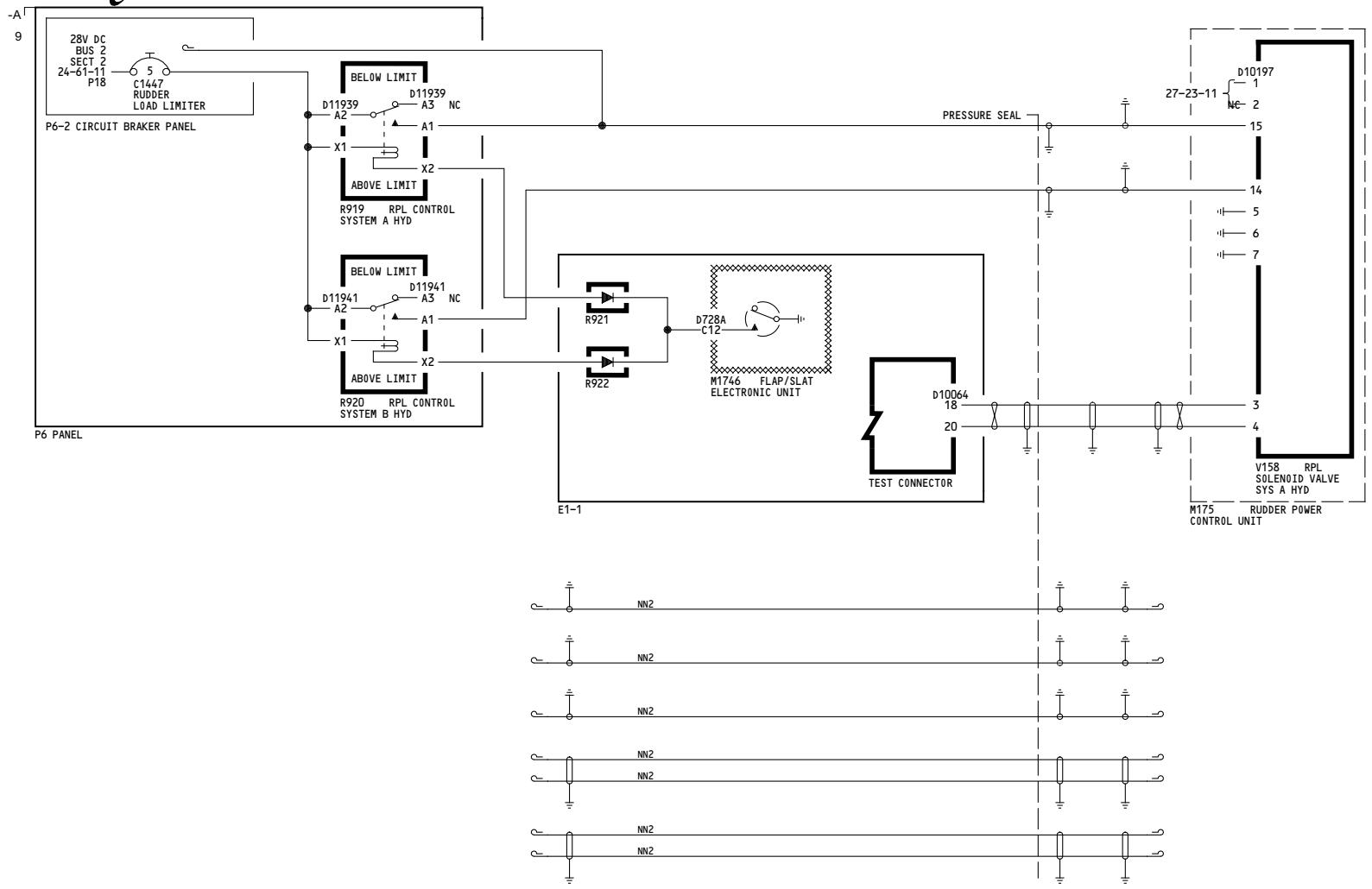

YC001-YC029	**RUDDER AUTHORITY LIMITER** D280A203	Incorporates 27-1247 27-1253 R03

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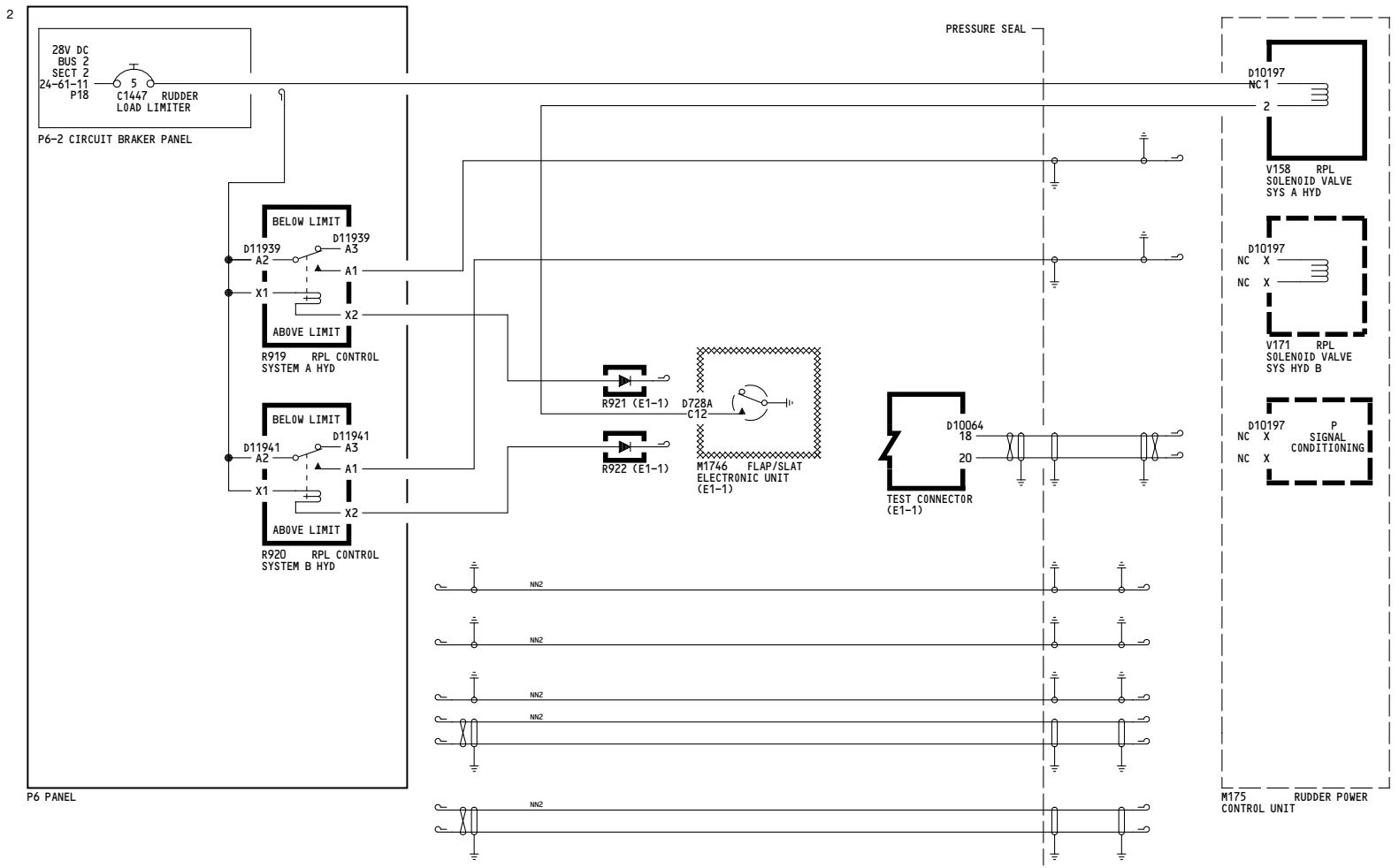

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RUDDER AUTHORITY LIMITER

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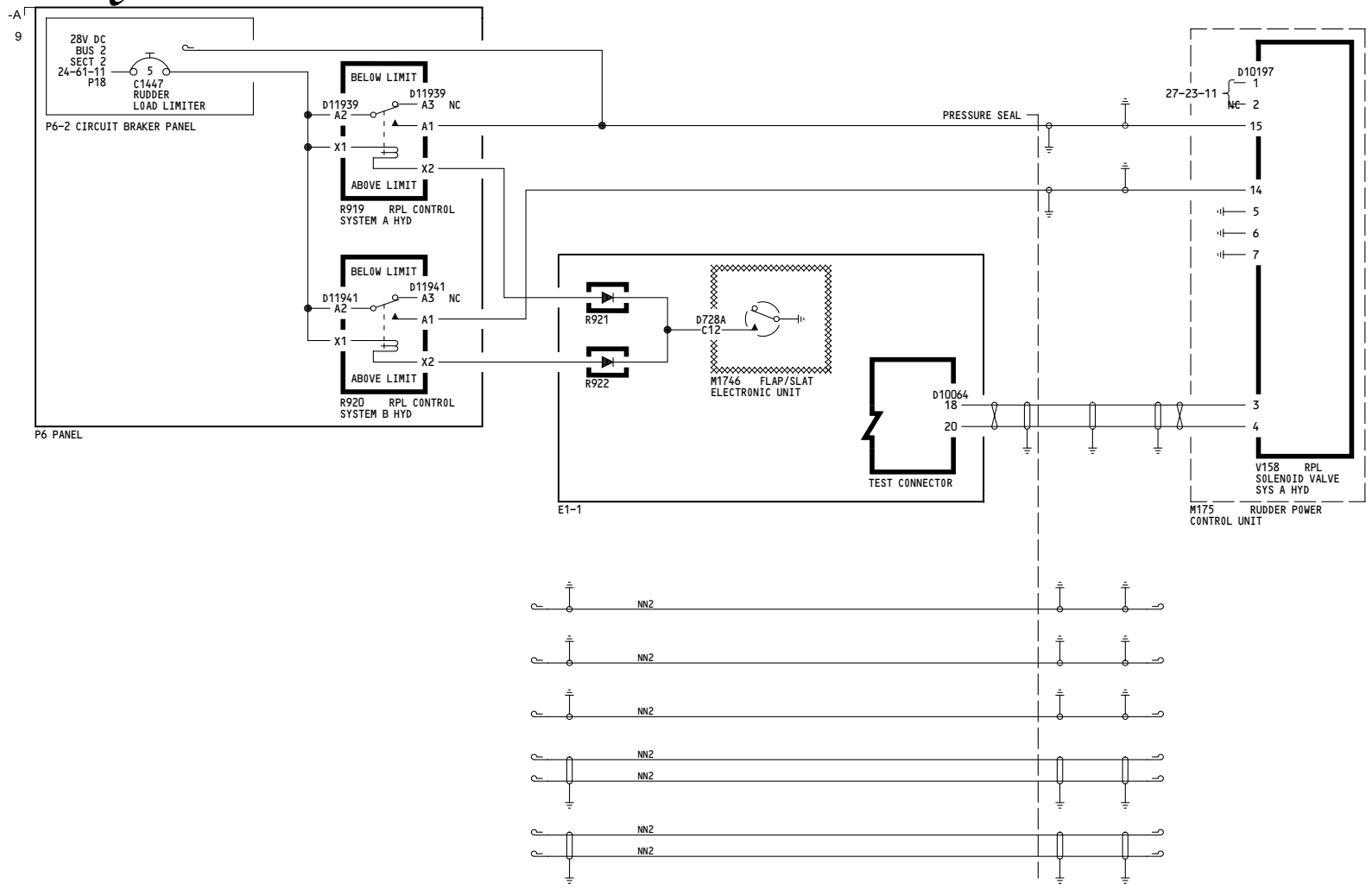

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RUDDER AUTHORITY LIMITER

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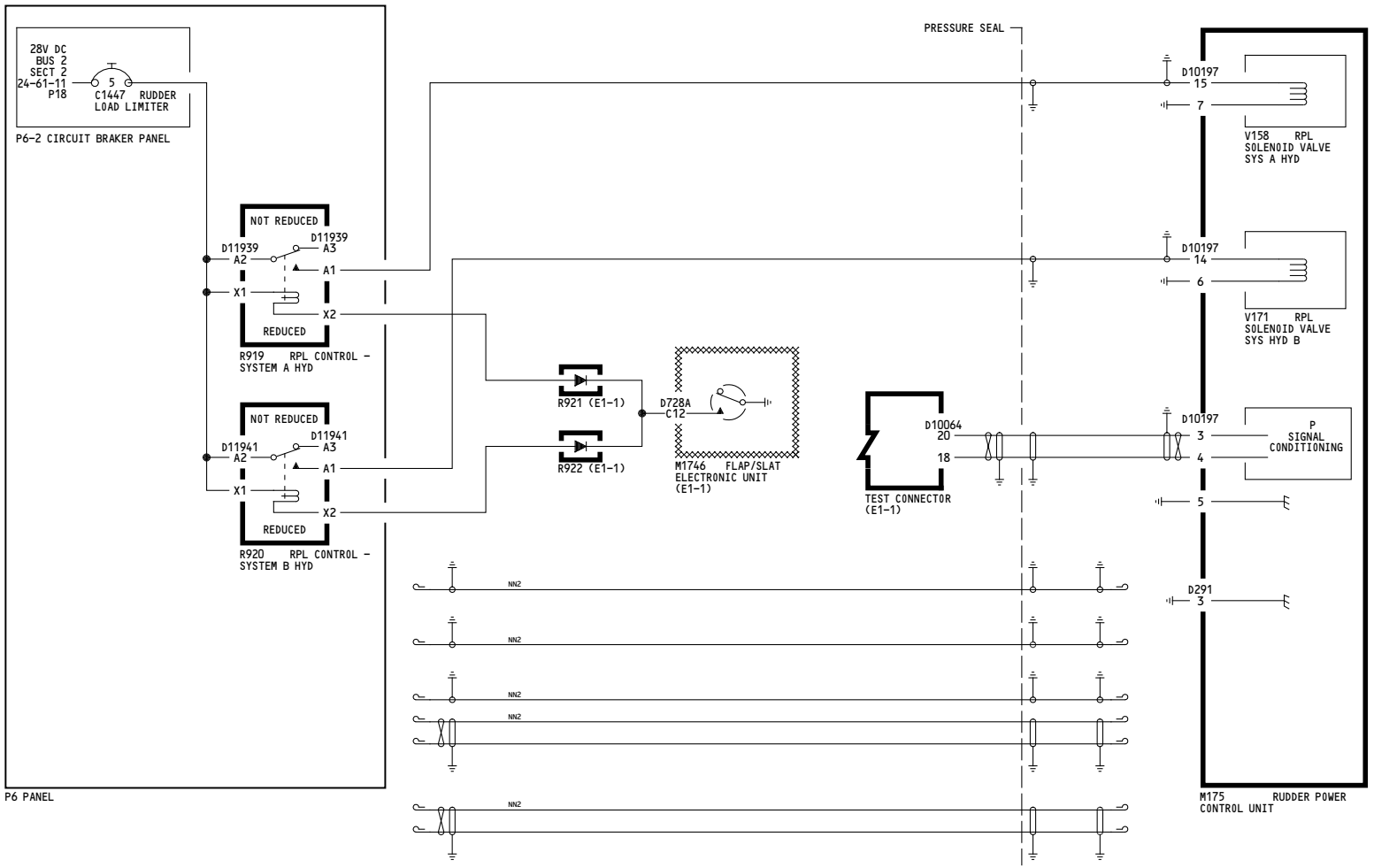

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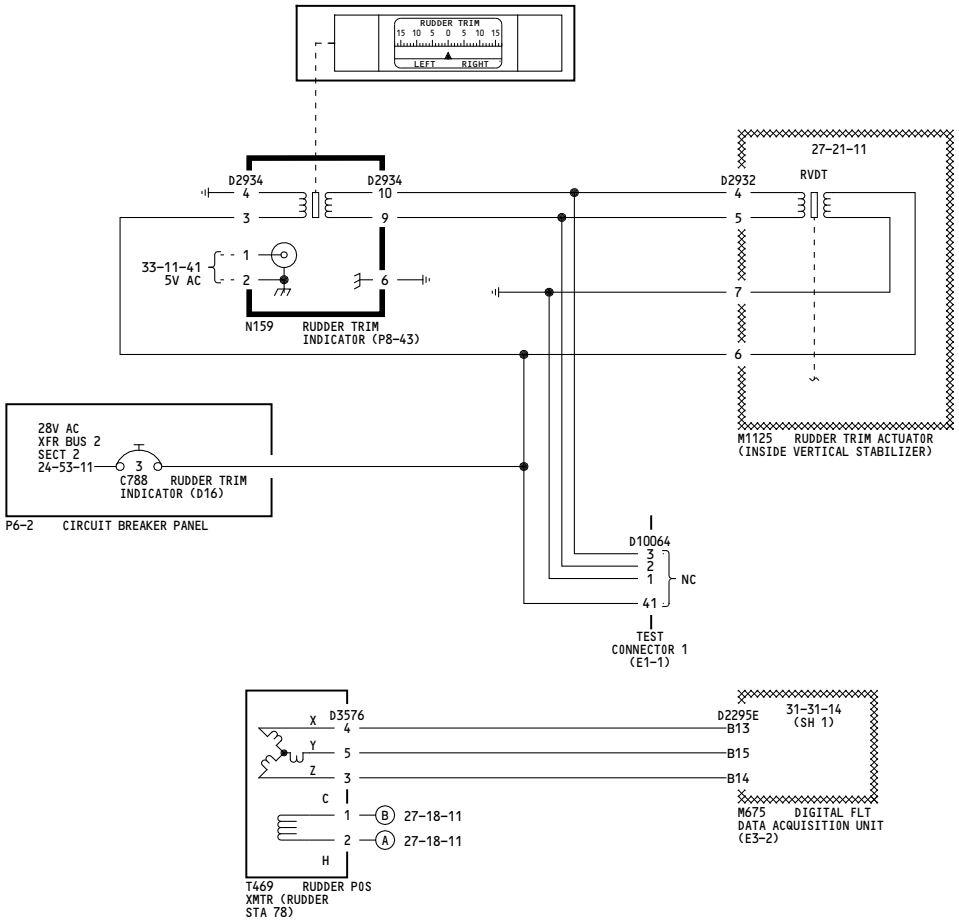

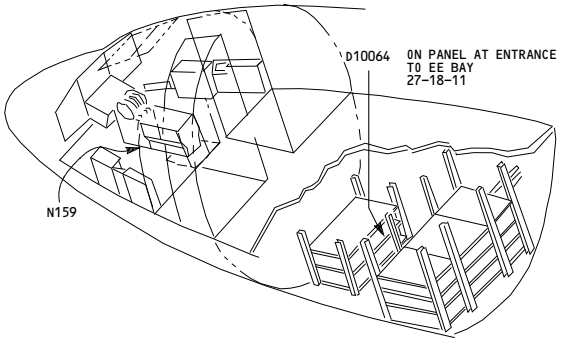

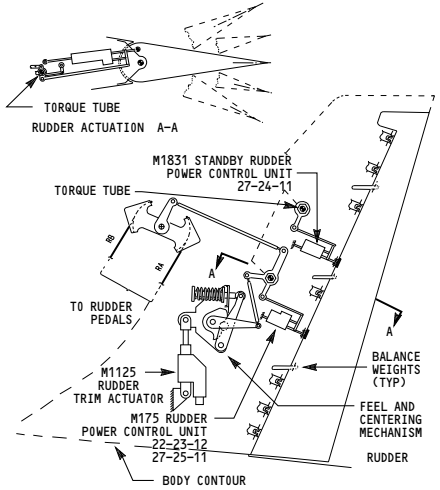

YC001-YC007

RUDDER TRIM AND POSITION INDICATION

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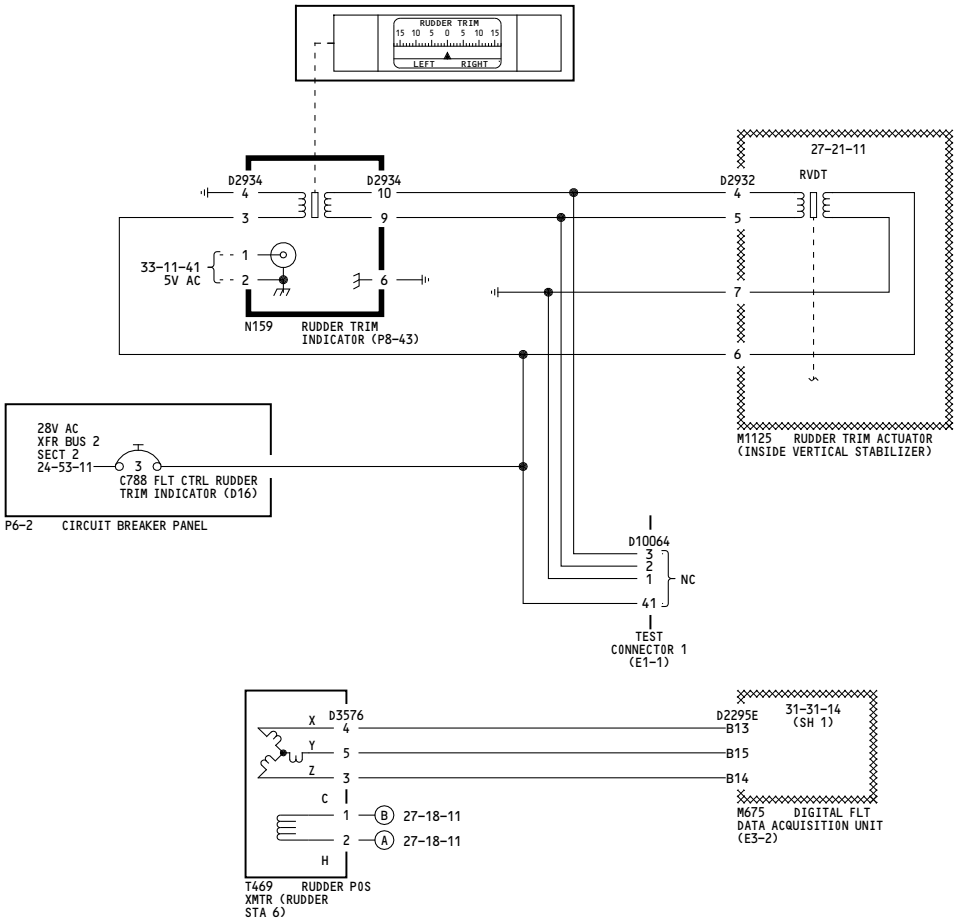

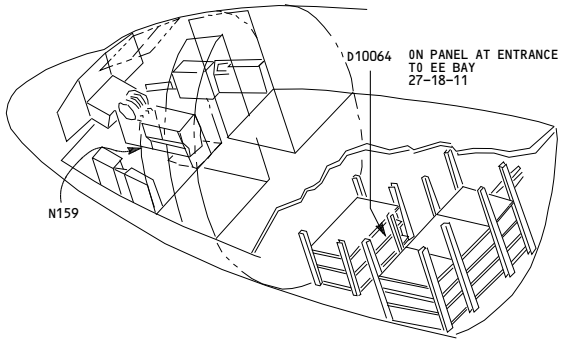

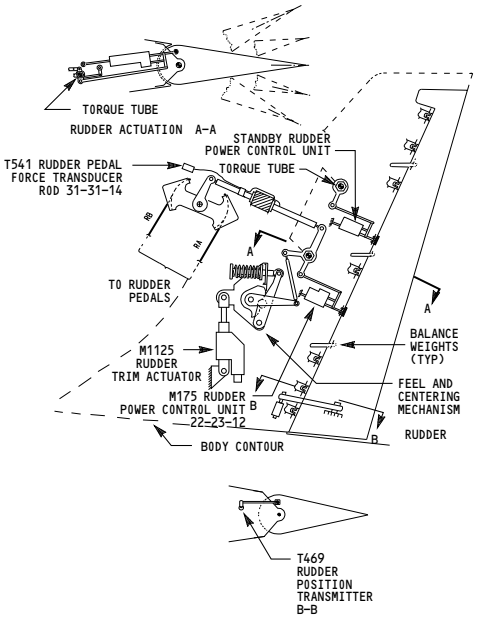

YC008-YM670

RUDDER TRIM AND POSITION INDICATION

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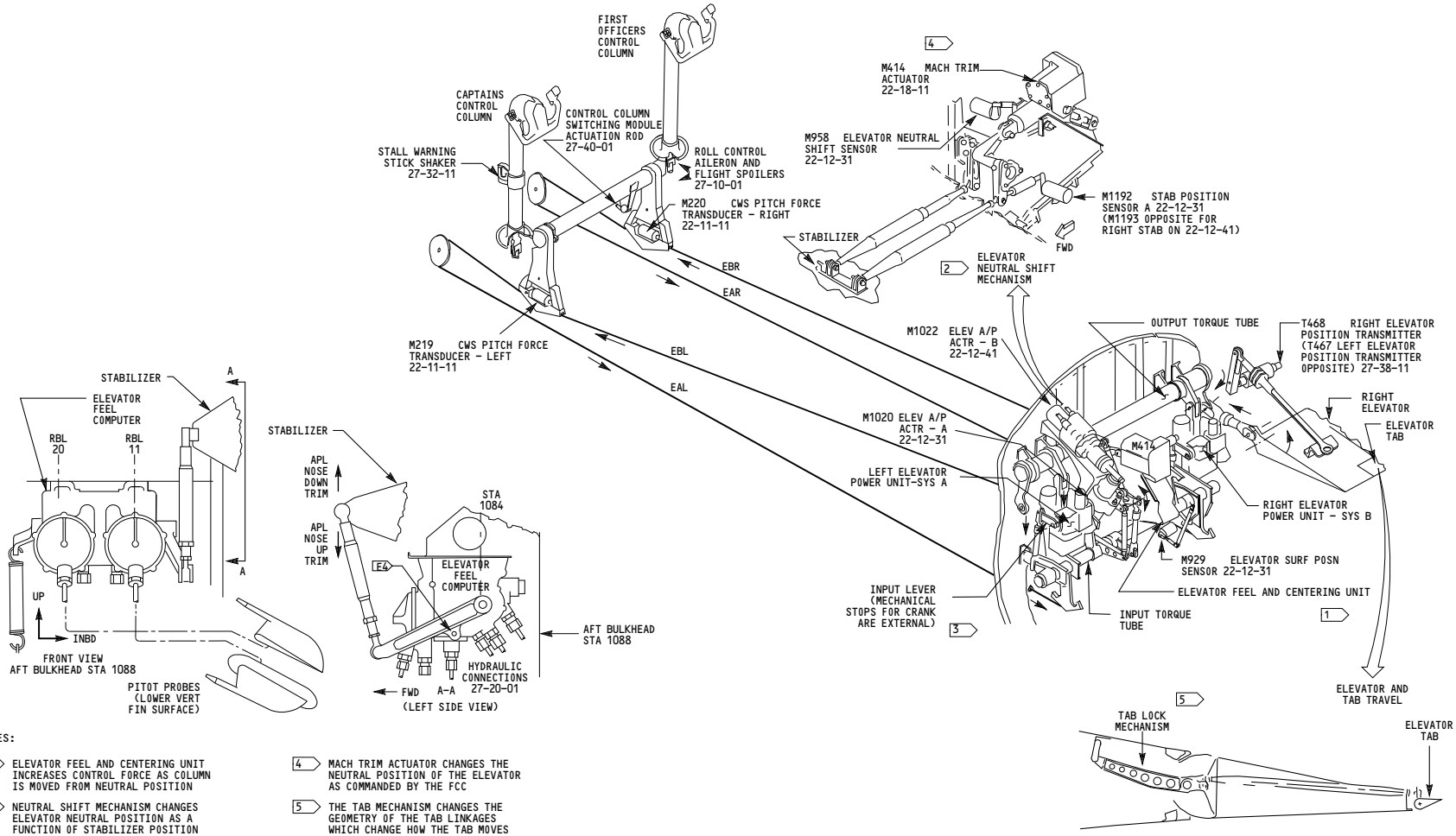

NOTES:

1. ELEVATOR FEEL AND CENTERING UNIT INCREASES CONTROL FORCE AS COLUMN IS MOVED FROM NEUTRAL POSITION
2. NEUTRAL SHIFT MECHANISM CHANGES ELEVATOR NEUTRAL POSITION AS A FUNCTION OF STABILIZER POSITION
3. FOR MANUAL REVERSION MODE, INPUT LEVER MOVES AGAINST THE MECHANICAL STOP. THE LEVER THEN WILL MOVE THE POWER UNIT. THE POWER UNIT MOVES THE ELEVATOR. THE ELEVATOR MOVES THE TAB
4. MACH TRIM ACTUATOR CHANGES THE NEUTRAL POSITION OF THE ELEVATOR AS COMMANDED BY THE FCC
5. THE TAB MECHANISM CHANGES THE GEOMETRY OF THE TAB LINKAGES WHICH CHANGE HOW THE TAB MOVES WHEN THE ELEVATOR MOVES

ALL	**ELEVATOR**
	D280A203

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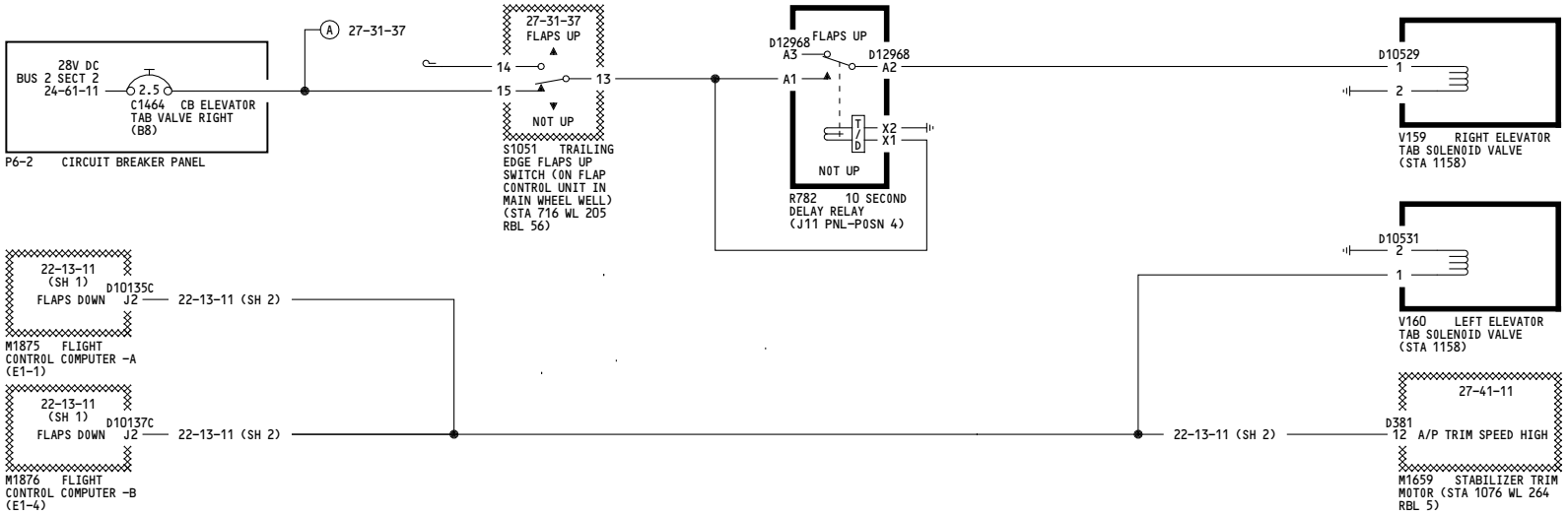

YC001-YC007

ELEVATOR TAB CONTROL

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27-1220

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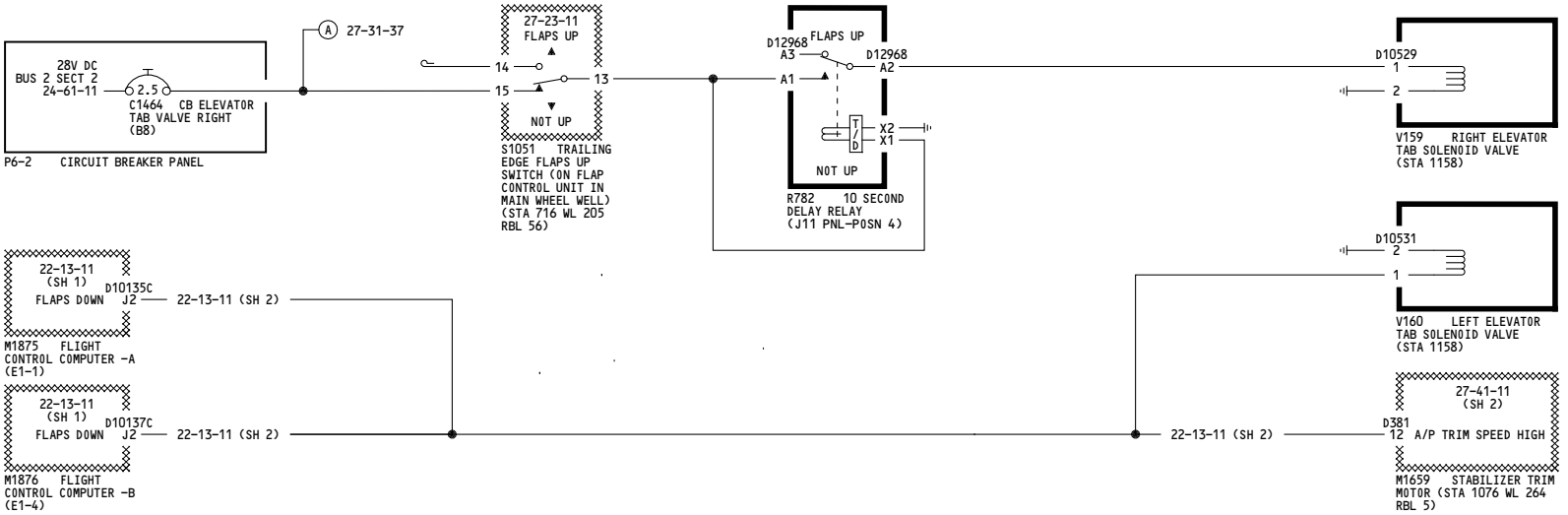

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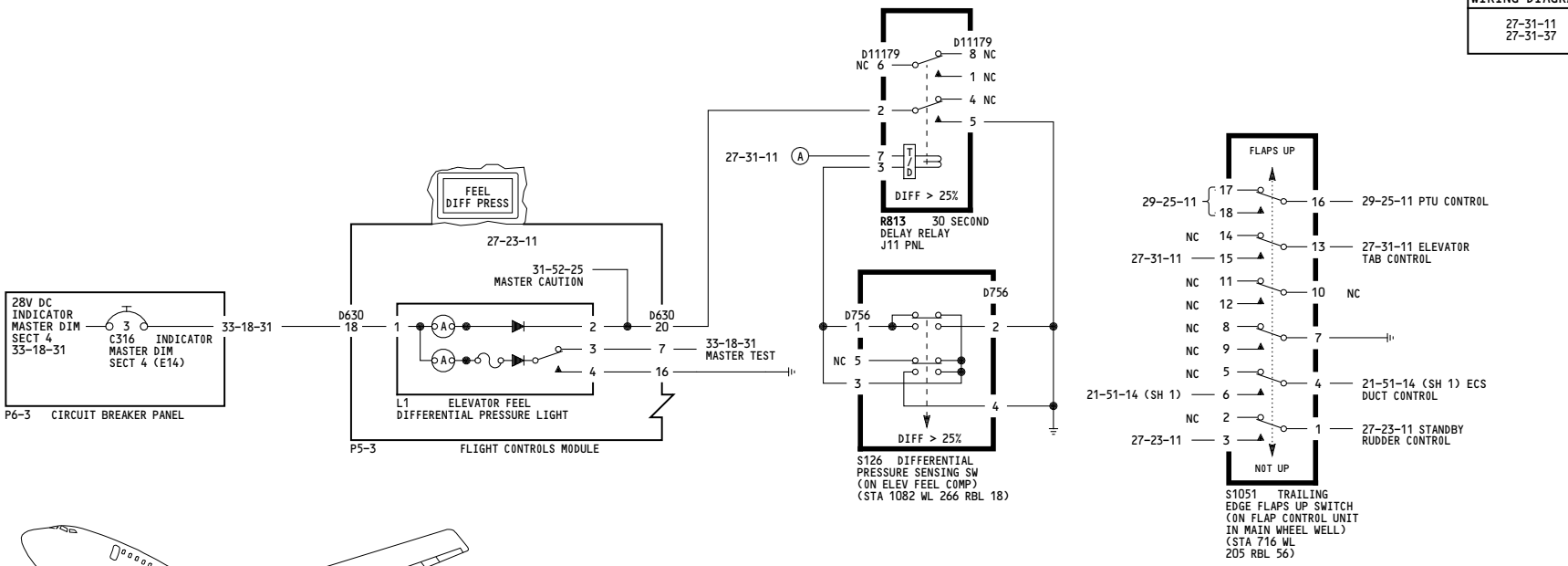
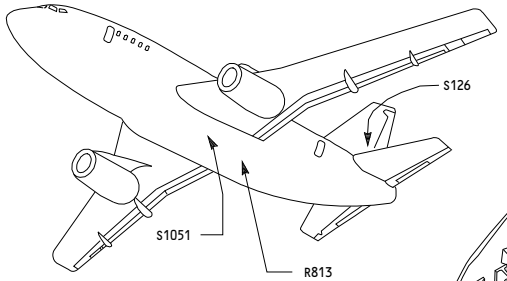
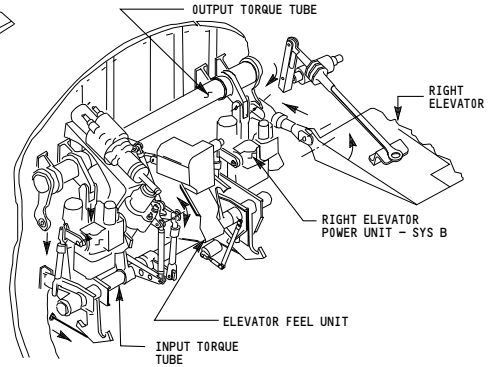
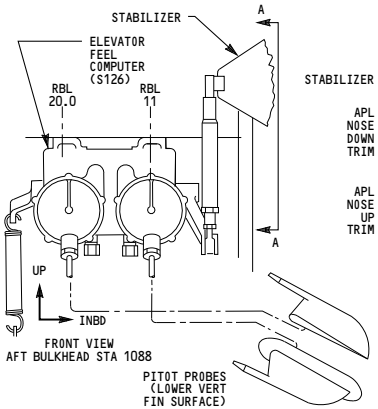
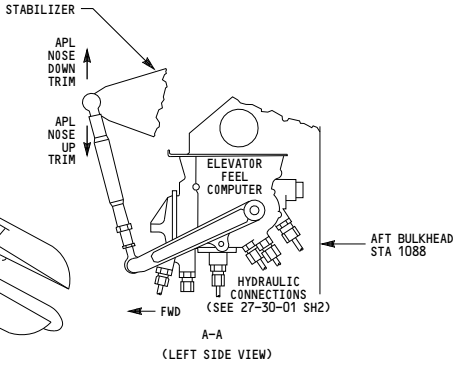
WIRING DIAGRAMS
27-31-11
27-31-37











YC001-YC007

ELEVATOR FEEL DIFFERENTIAL PRESSURE

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Incorporates
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Mar 31/2005

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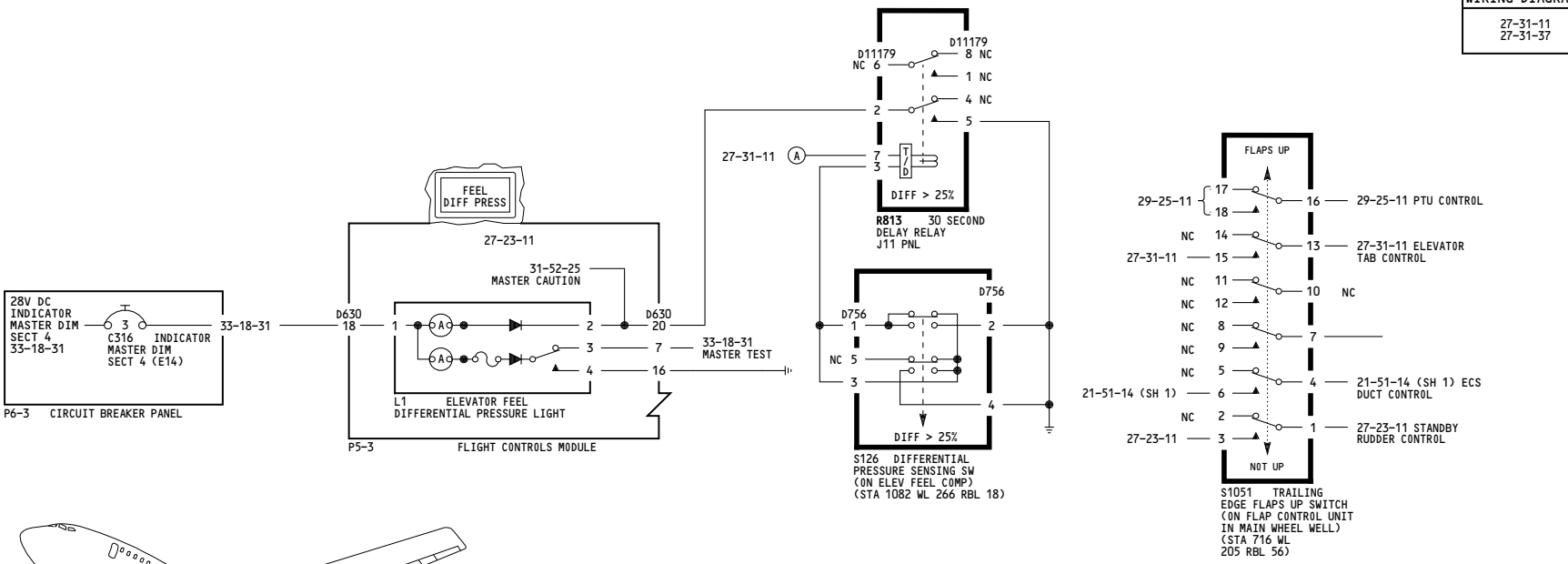

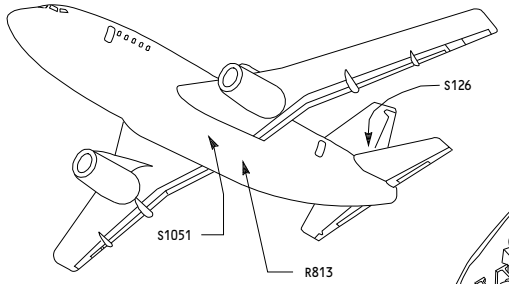

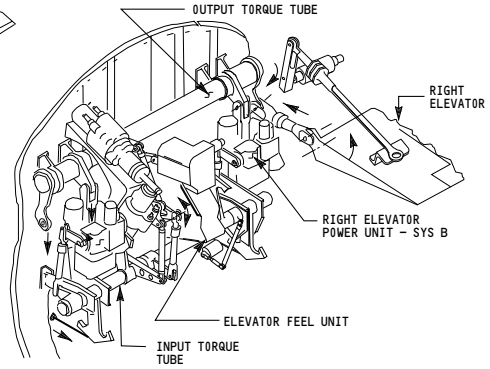

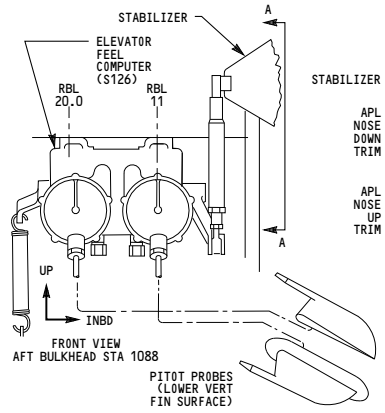

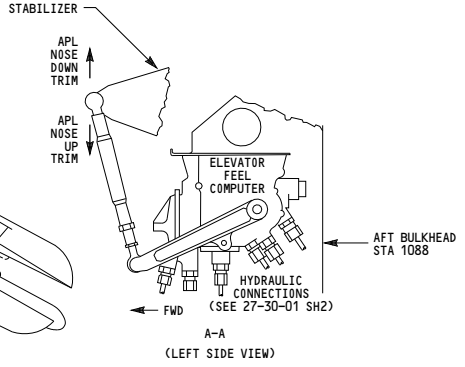

YC008-YK912, YK918-YK919, YL401-YL429, YM643-YM652

ELEVATOR FEEL DIFFERENTIAL PRESSURE

D280A203

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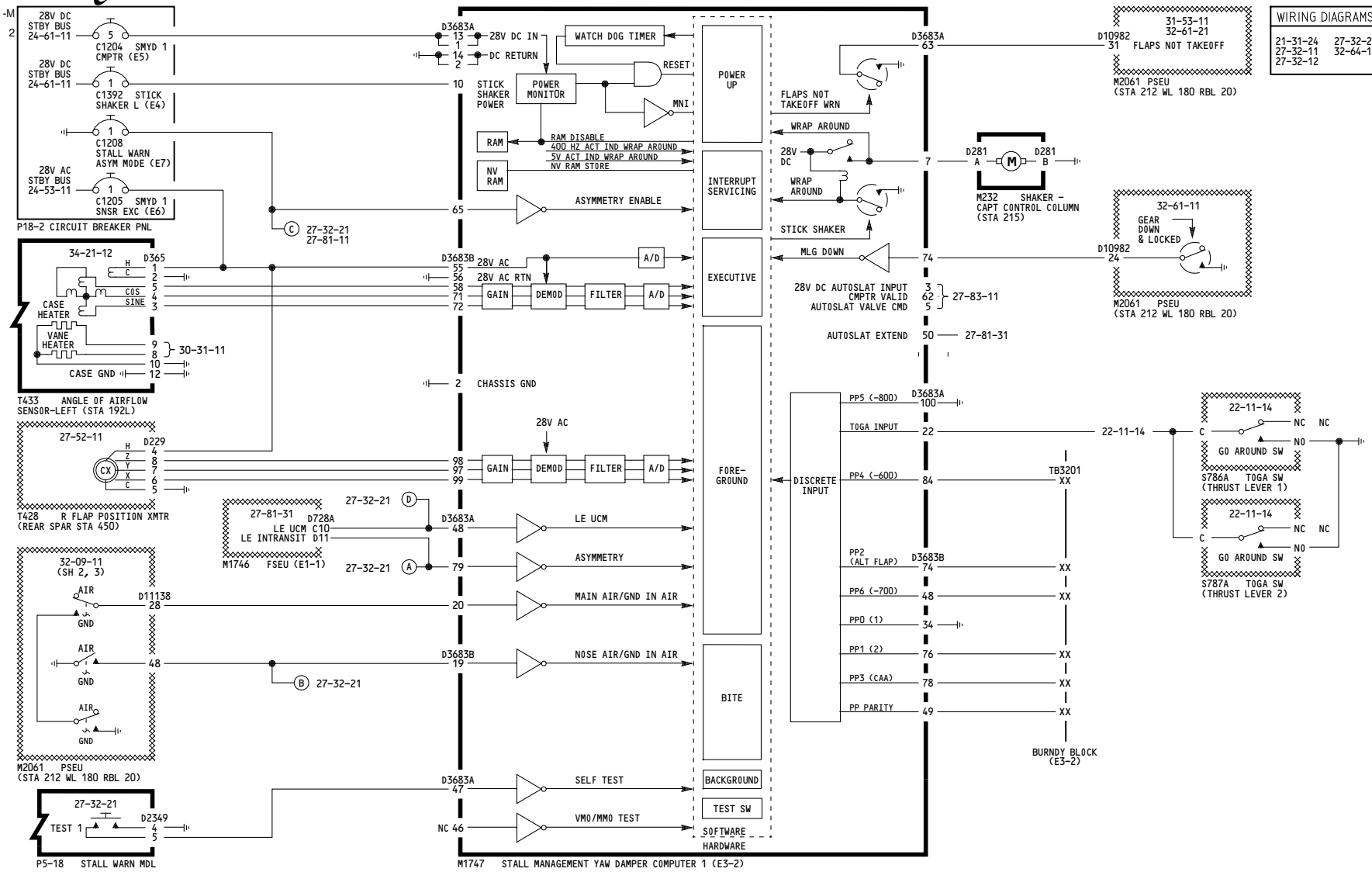

YC001-YK906

STALL WARNING SYSTEM 1 POWER AND ANALOGS

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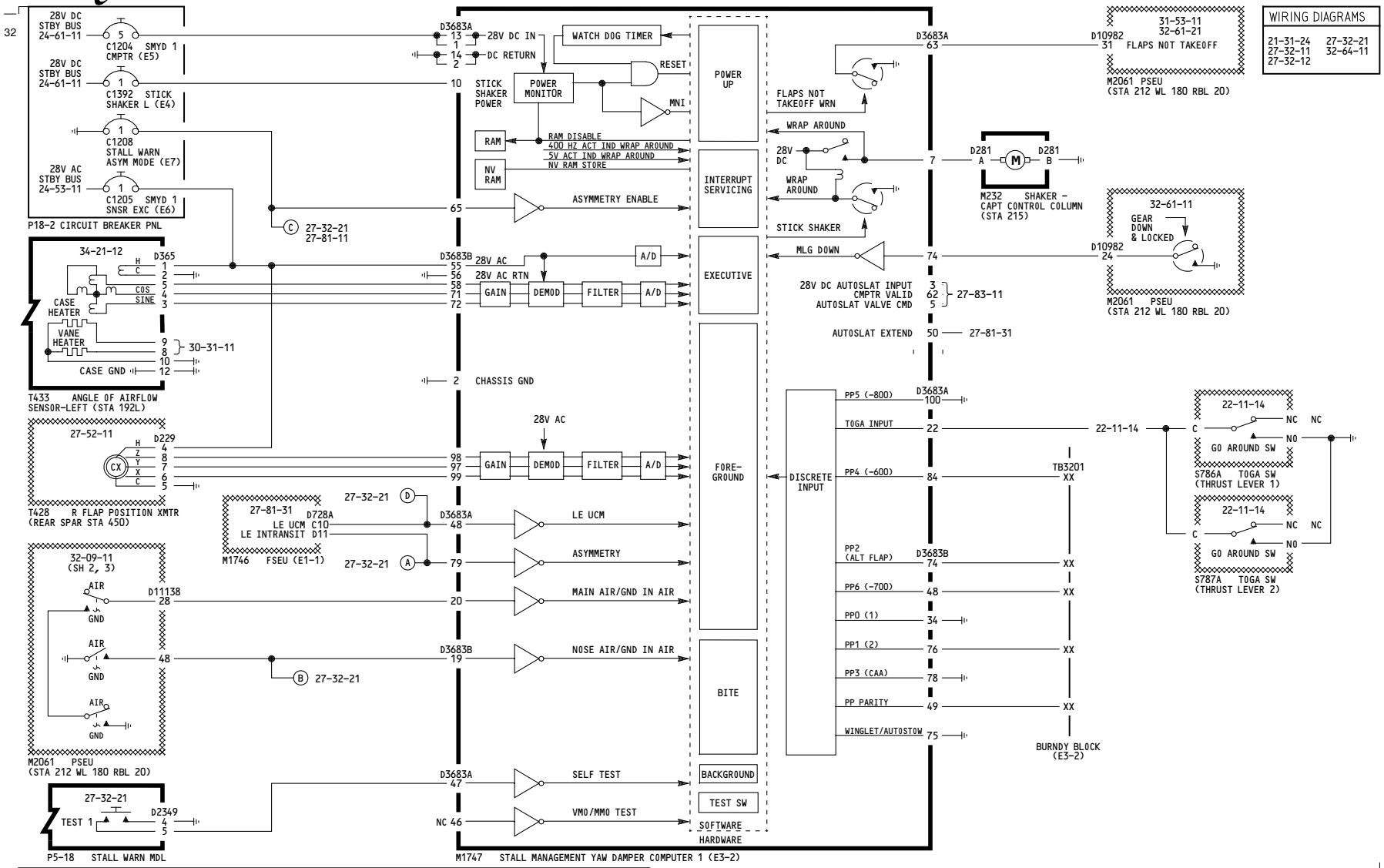

YC001-YC010, YC012-YC025

STALL WARNING SYSTEM 1 POWER AND ANALOGS

Incorporates PD 0802664

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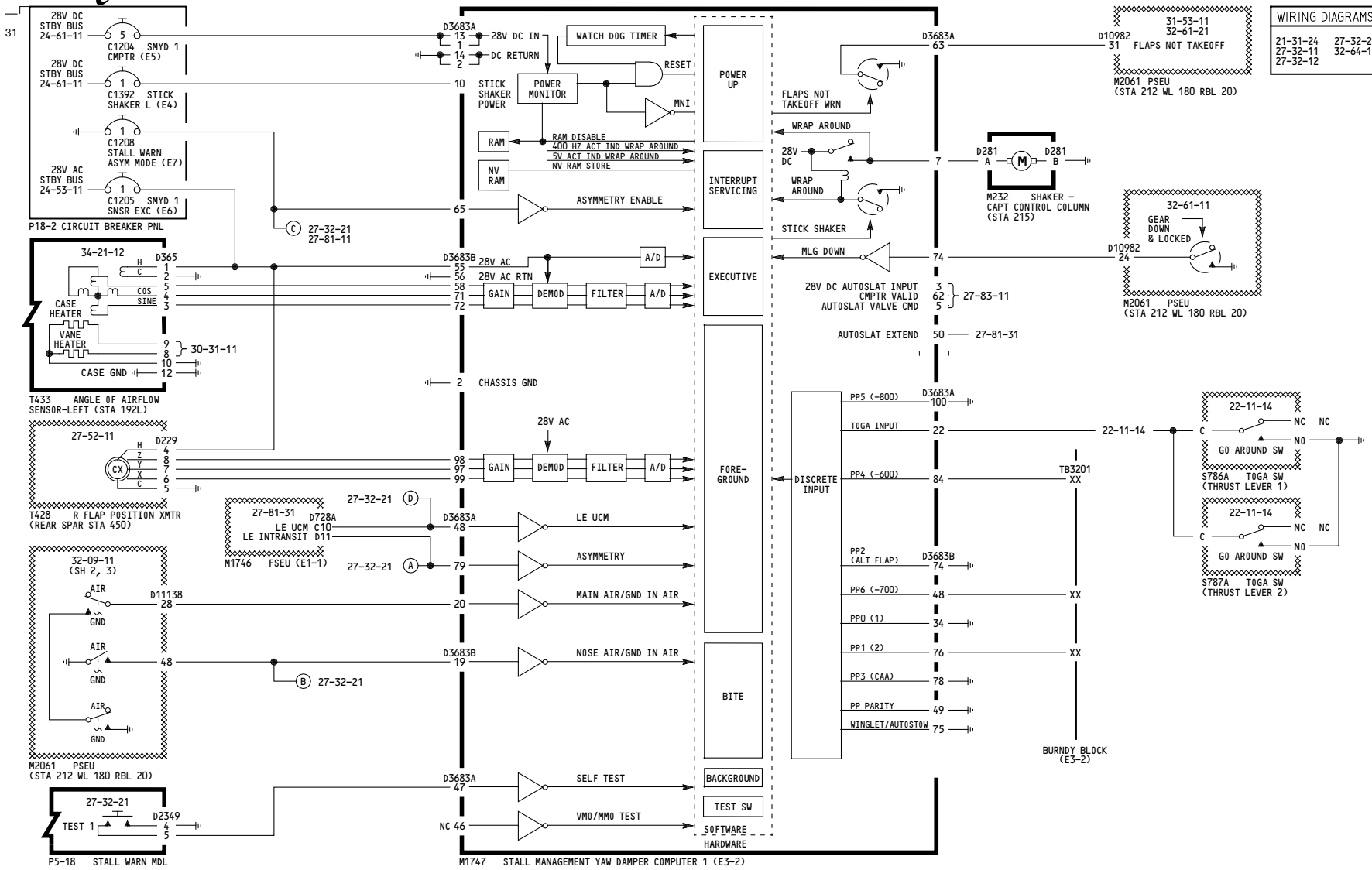

YC026-YC030

STALL WARNING SYSTEM 1 POWER AND ANALOGS

Incorporates PD 0802664

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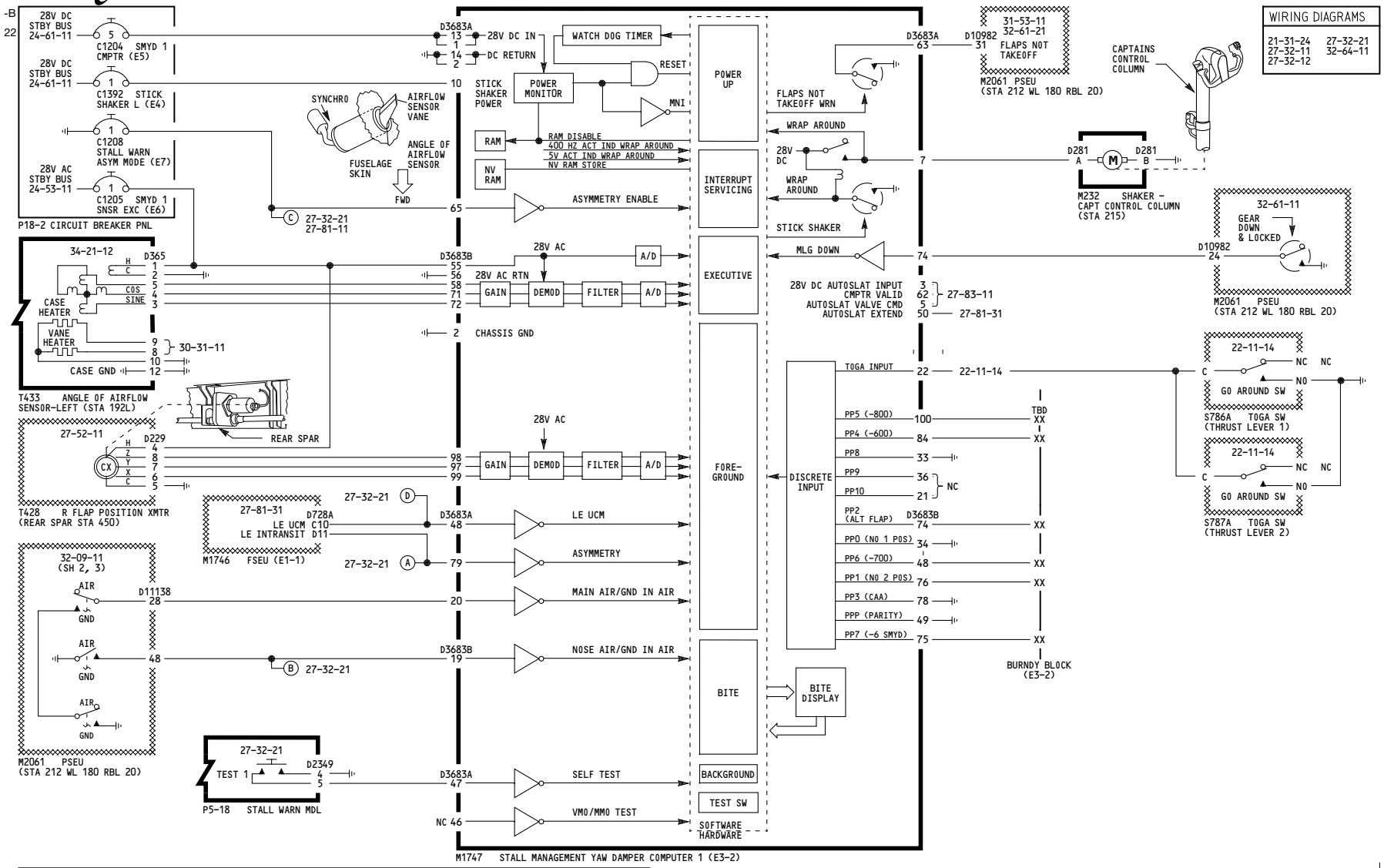

YK907-YL430

STALL WARNING SYSTEM 1 POWER AND ANALOGS

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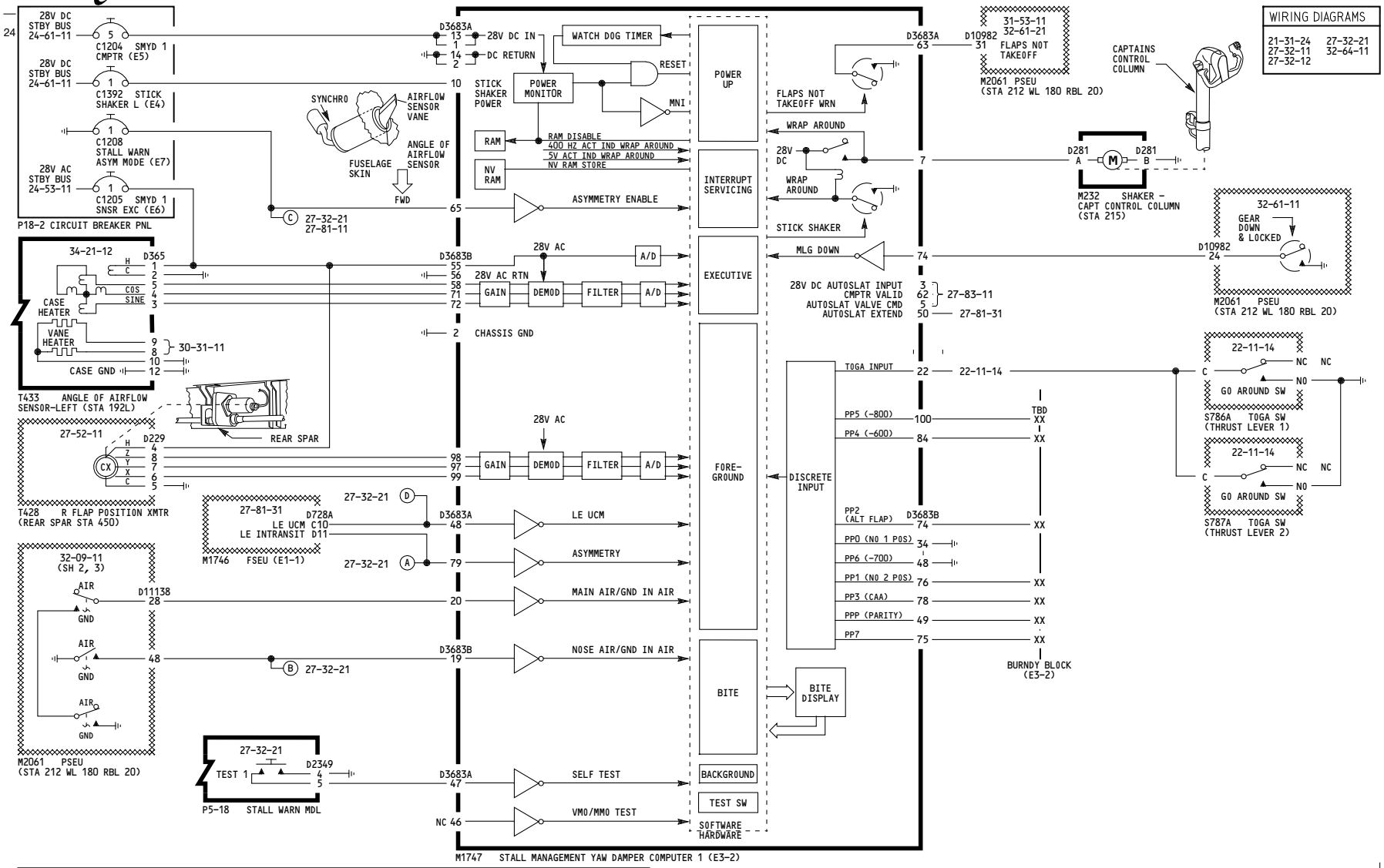

YM643-YM670

STALL WARNING SYSTEM 1 POWER AND ANALOGS

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27-32-11

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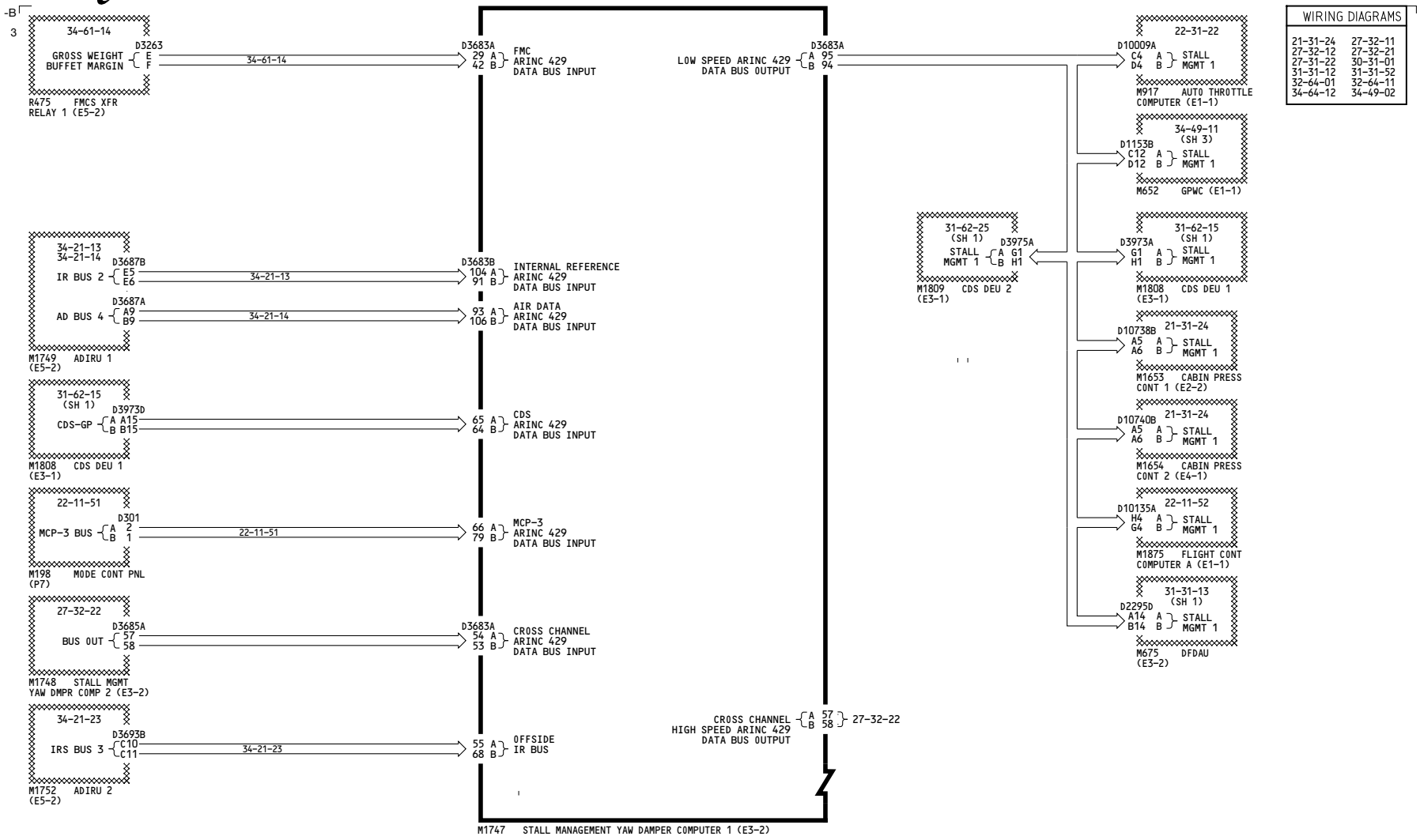

WIRING DIAGRAMS	
21-31-24	27-32-11
27-32-12	27-32-21
27-31-22	30-31-01
31-31-12	31-31-52
32-64-01	32-64-11
34-64-12	34-49-02

YC001-YC030

STALL WARNING SYSTEM 1 DIGITAL INTERFACE

D280A203

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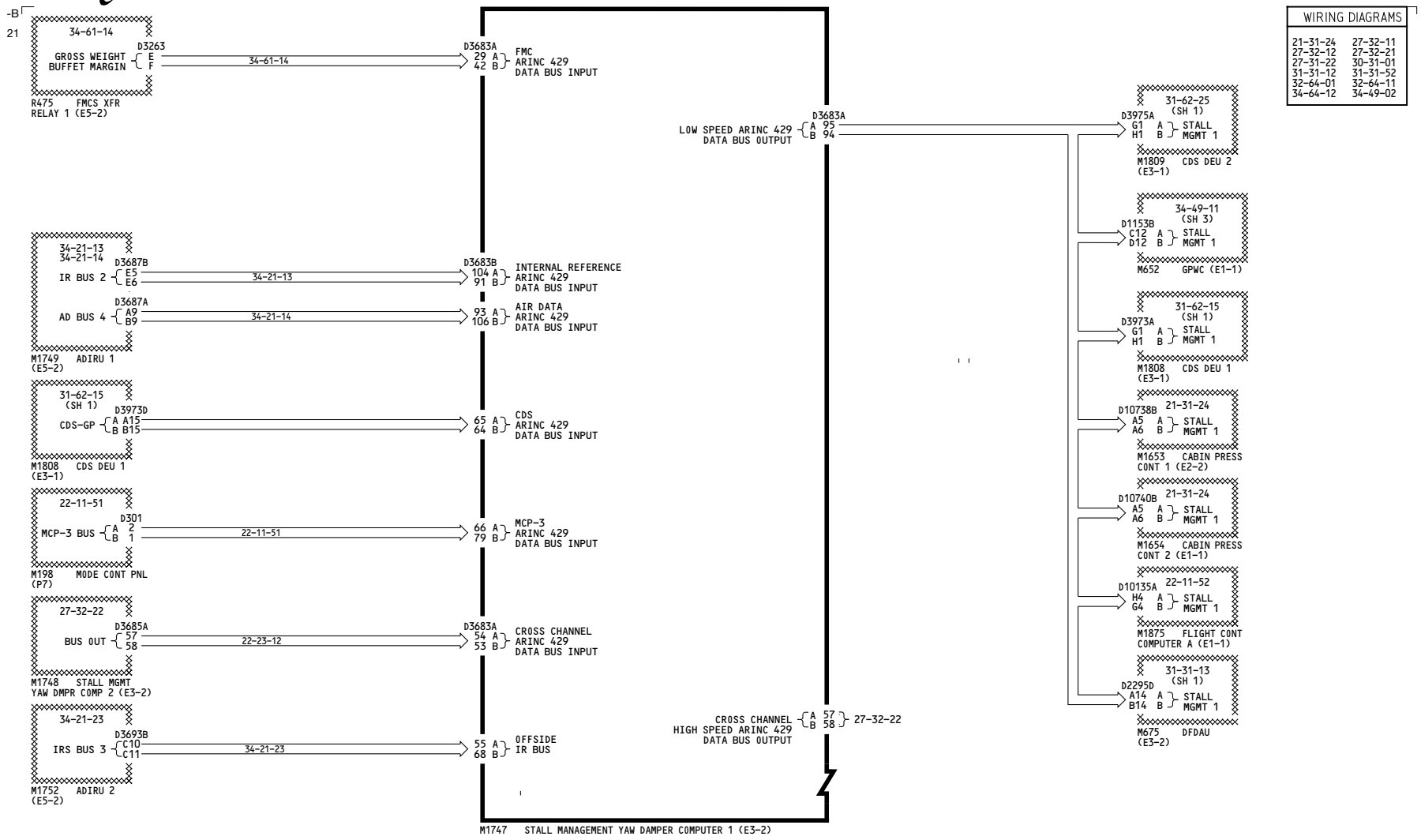

WIRING DIAGRAMS

21-31-24	27-32-11
27-32-12	27-32-21
27-31-22	30-31-01
31-31-12	31-31-52
32-64-01	32-64-11
34-64-12	34-49-02

YC031-YM670

STALL WARNING SYSTEM 1
DIGITAL INTERFACE

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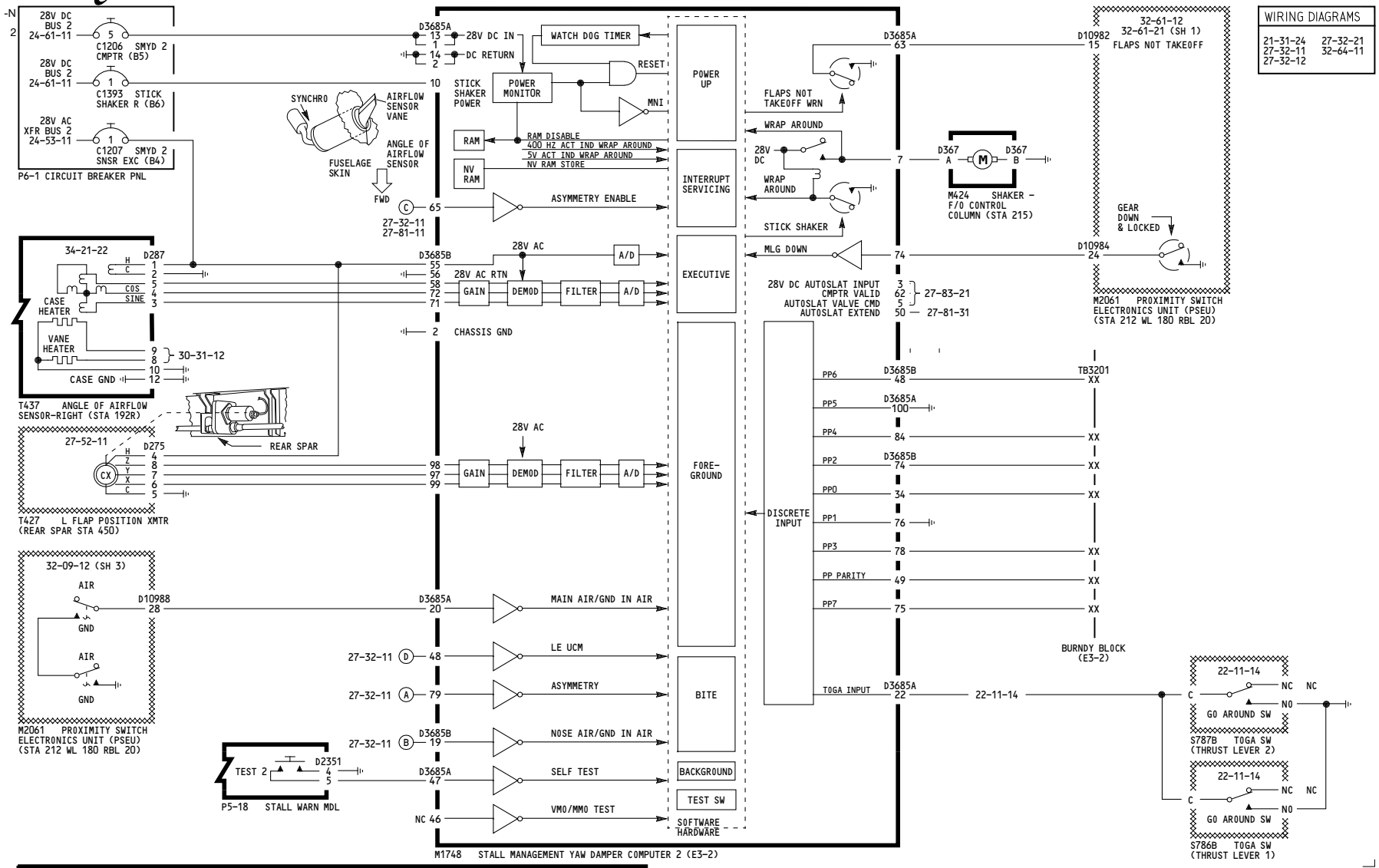

YC001-YK906

STALL WARNING SYSTEM 2 POWER AND ANALOGS

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27-32-21

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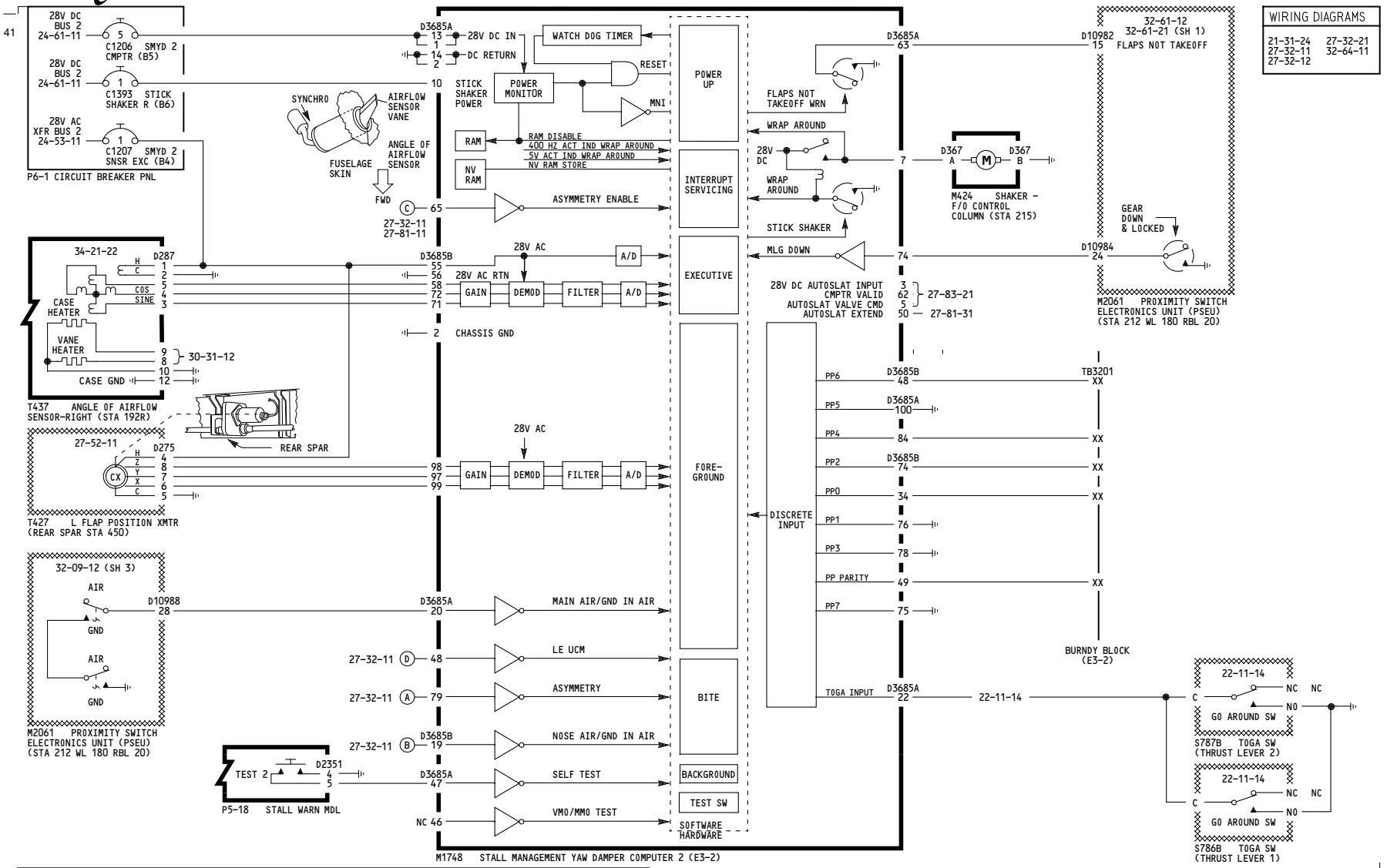

WIRING DIAGRAMS

21-31-24	27-32-21
27-32-11	32-64-11
27-32-12	

YC001-YC010, YC012-YC025

STALL WARNING SYSTEM 2 POWER AND ANALOGS

Incorporates PD 0802664

D280A203

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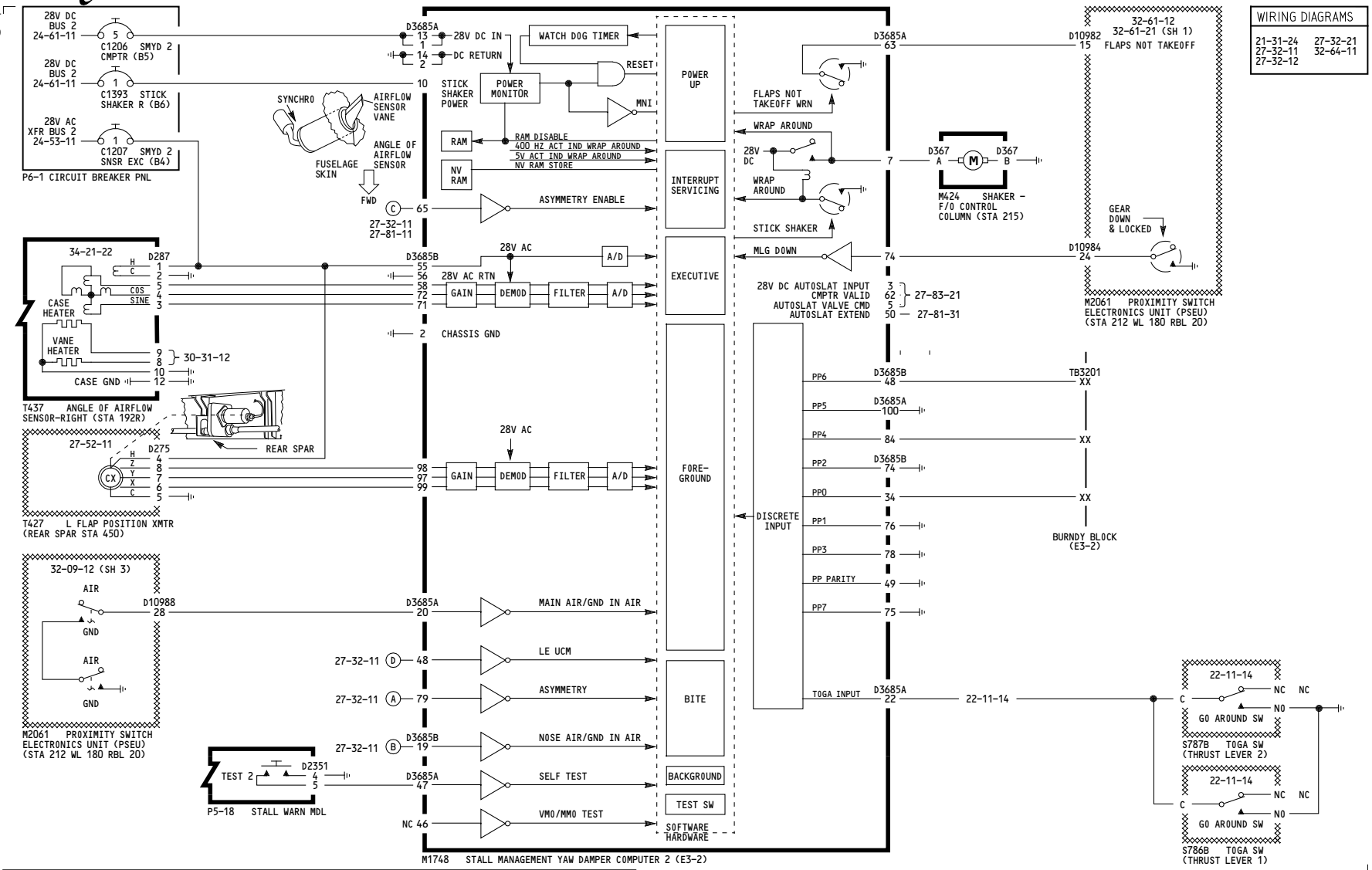

YC026-YC030

STALL WARNING SYSTEM 2 POWER AND ANALOGS

Incorporates PD 0802664

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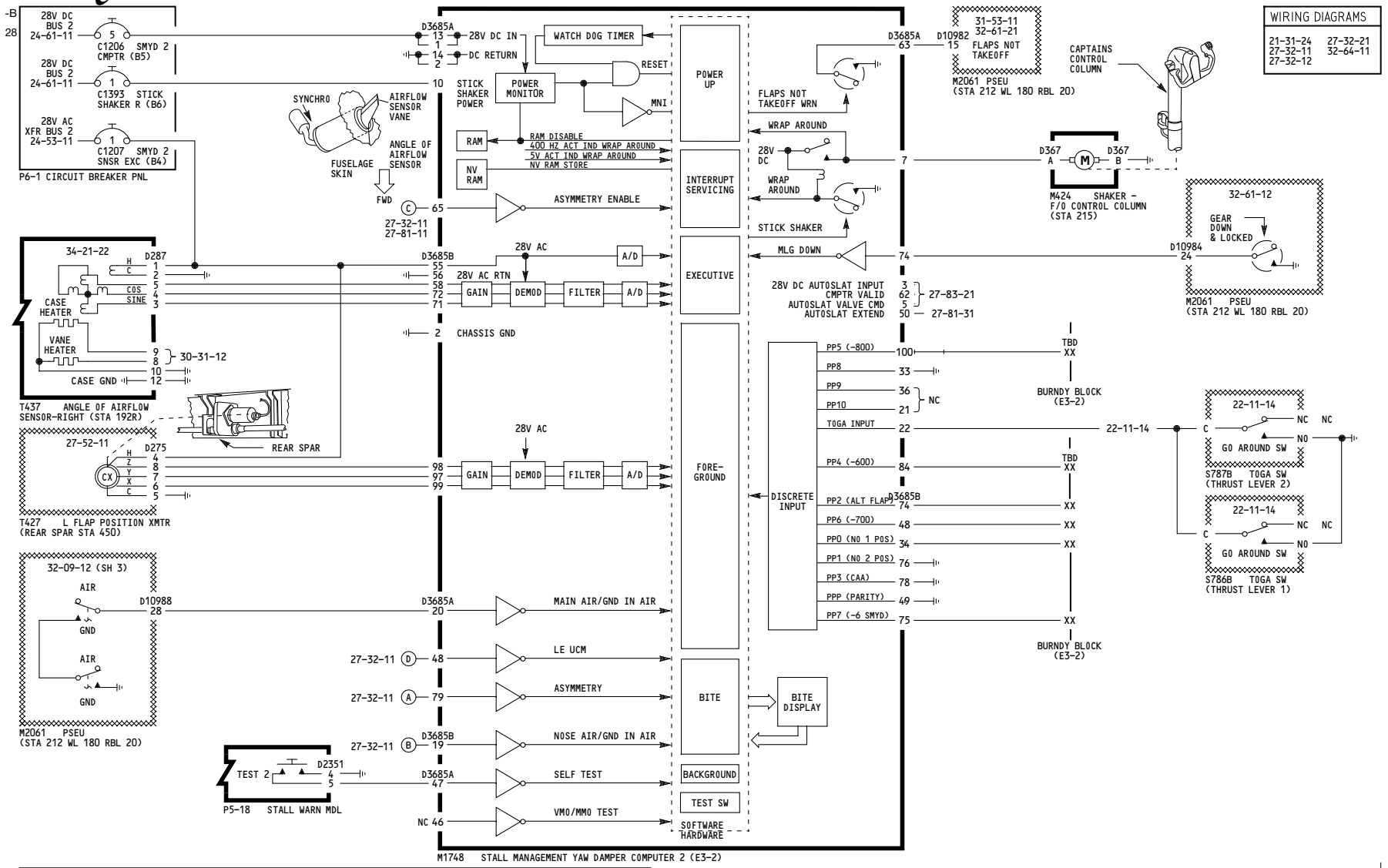

YK907-YL430

STALL WARNING SYSTEM 2 POWER AND ANALOGS

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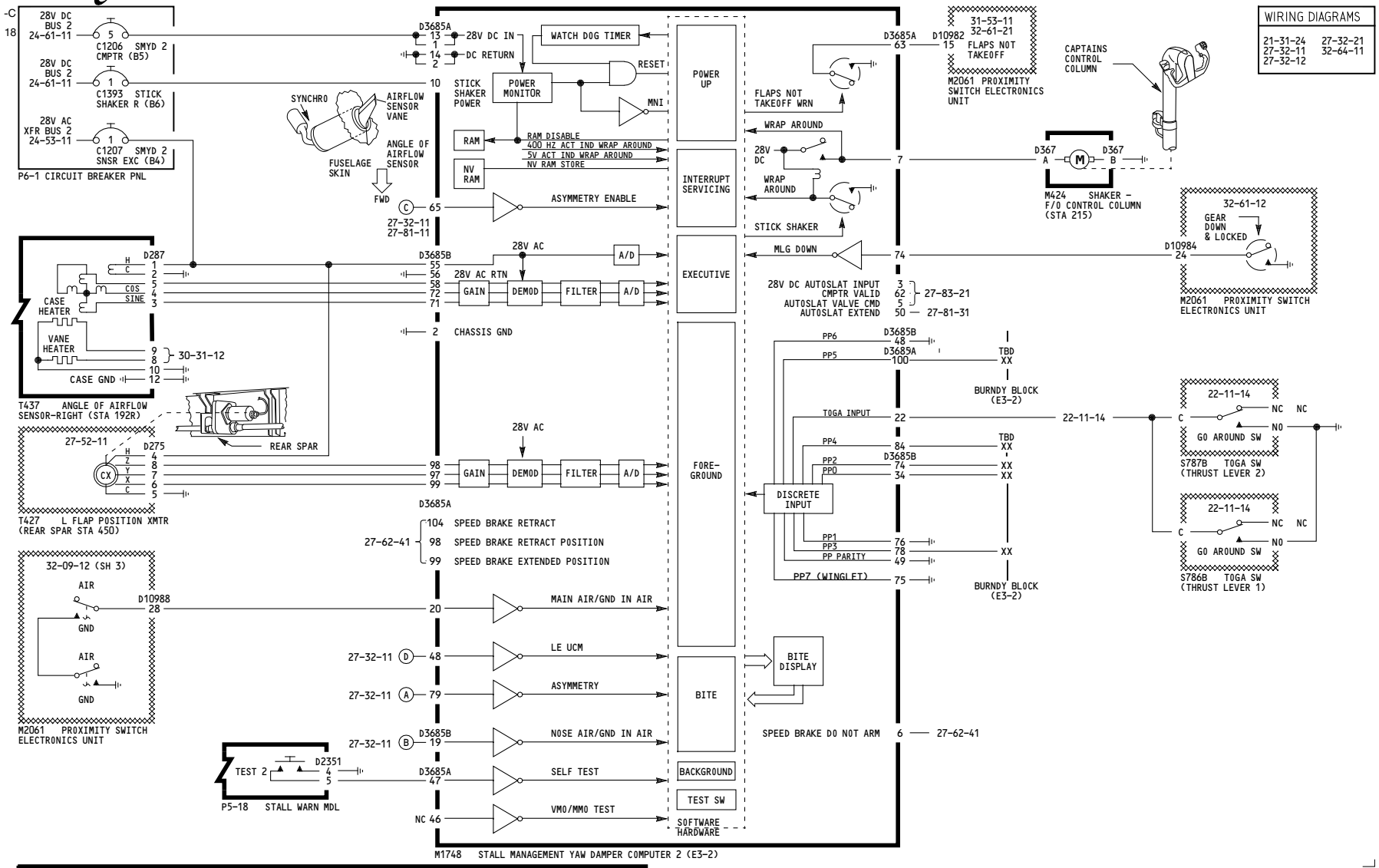

YM643-YM670

STALL WARNING SYSTEM 2 POWER AND ANALOGS

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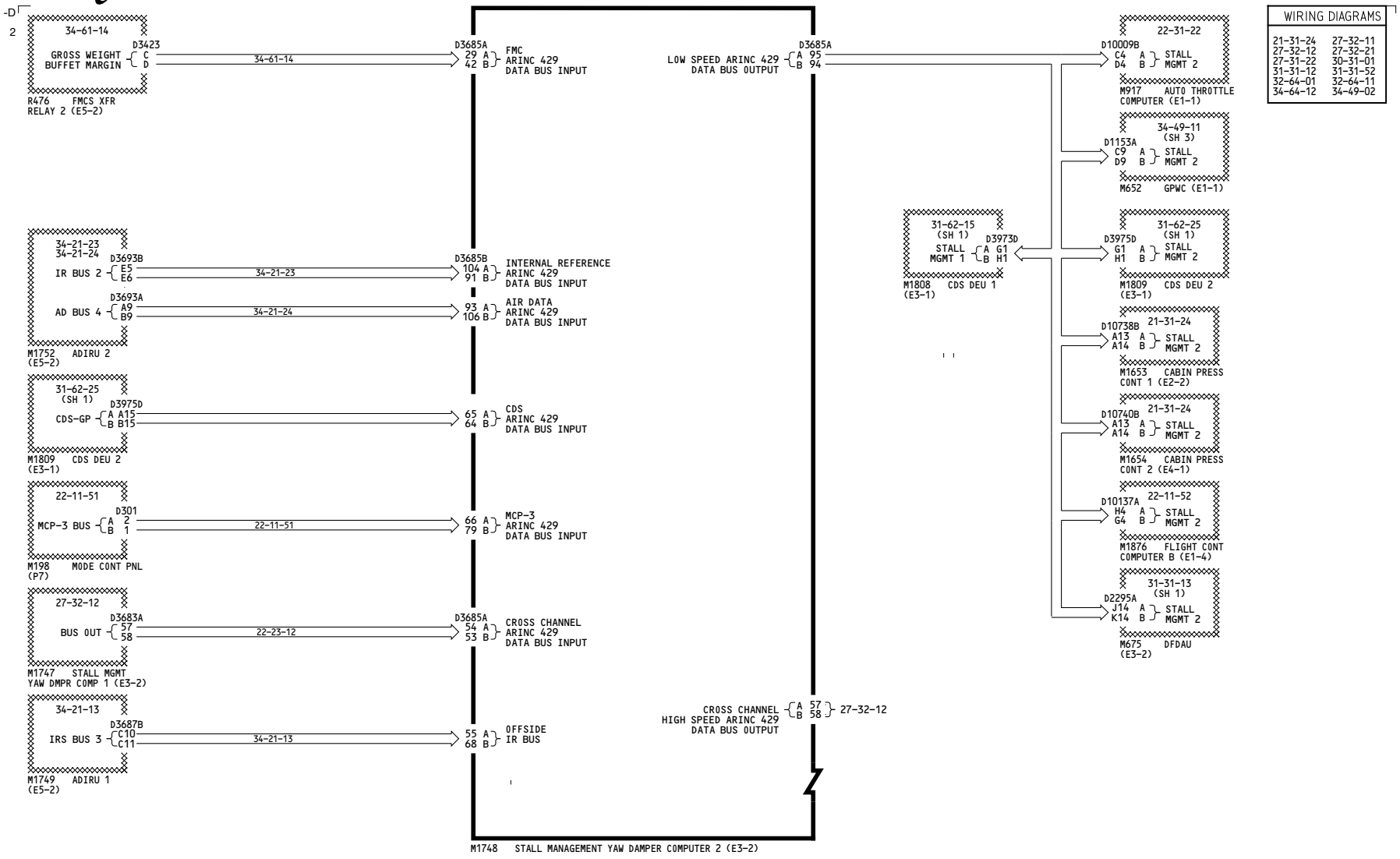

WIRING DIAGRAMS

21-31-24	27-32-11
27-32-12	27-32-21
27-31-22	30-31-01
31-31-12	31-31-52
32-64-01	32-64-11
34-64-12	34-49-02

YC001-YC030

STALL WARNING SYSTEM 2 DIGITAL INTERFACE

D280A203

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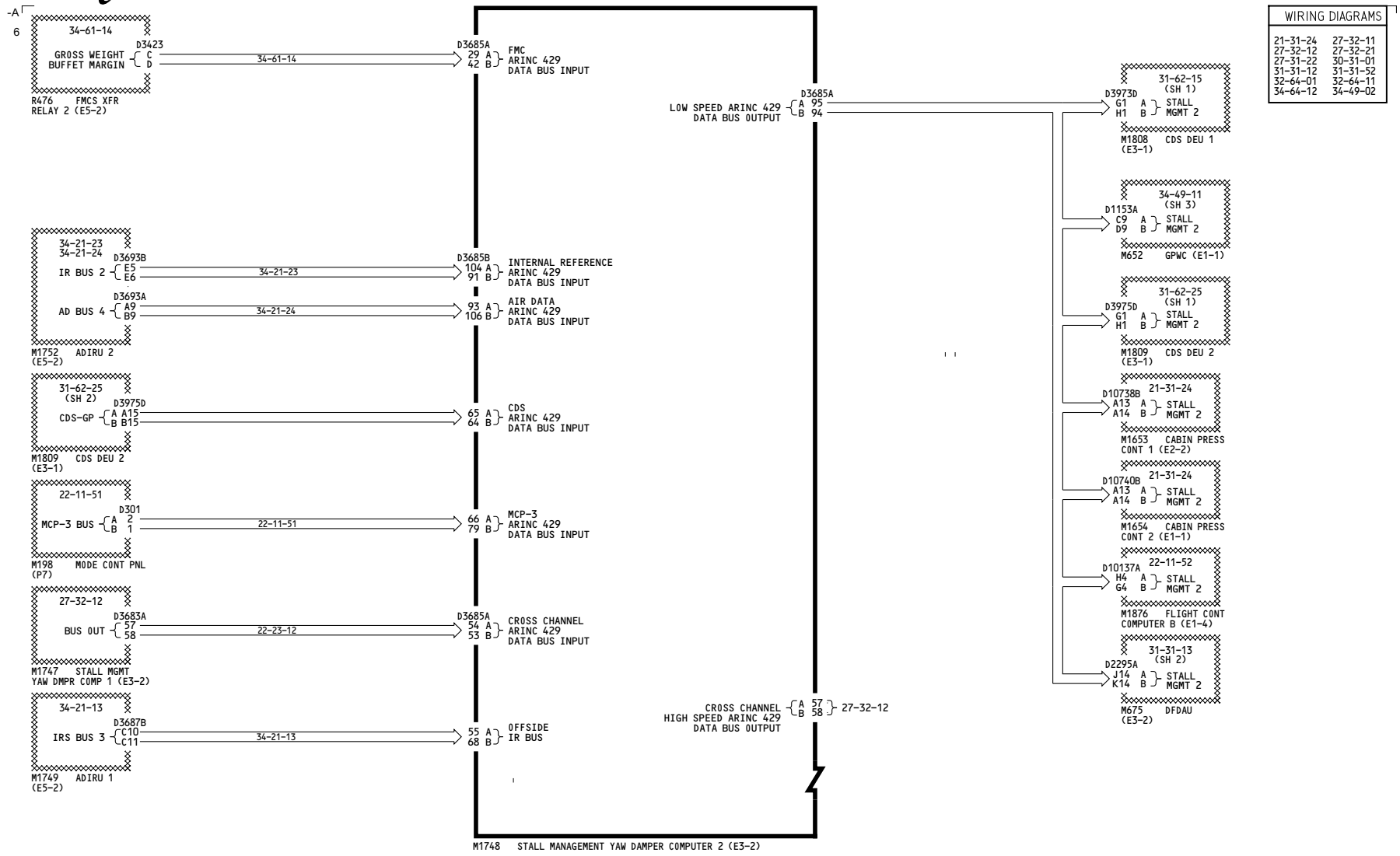

YK901-YM670

STALL WARNING SYSTEM 2 DIGITAL INTERFACE

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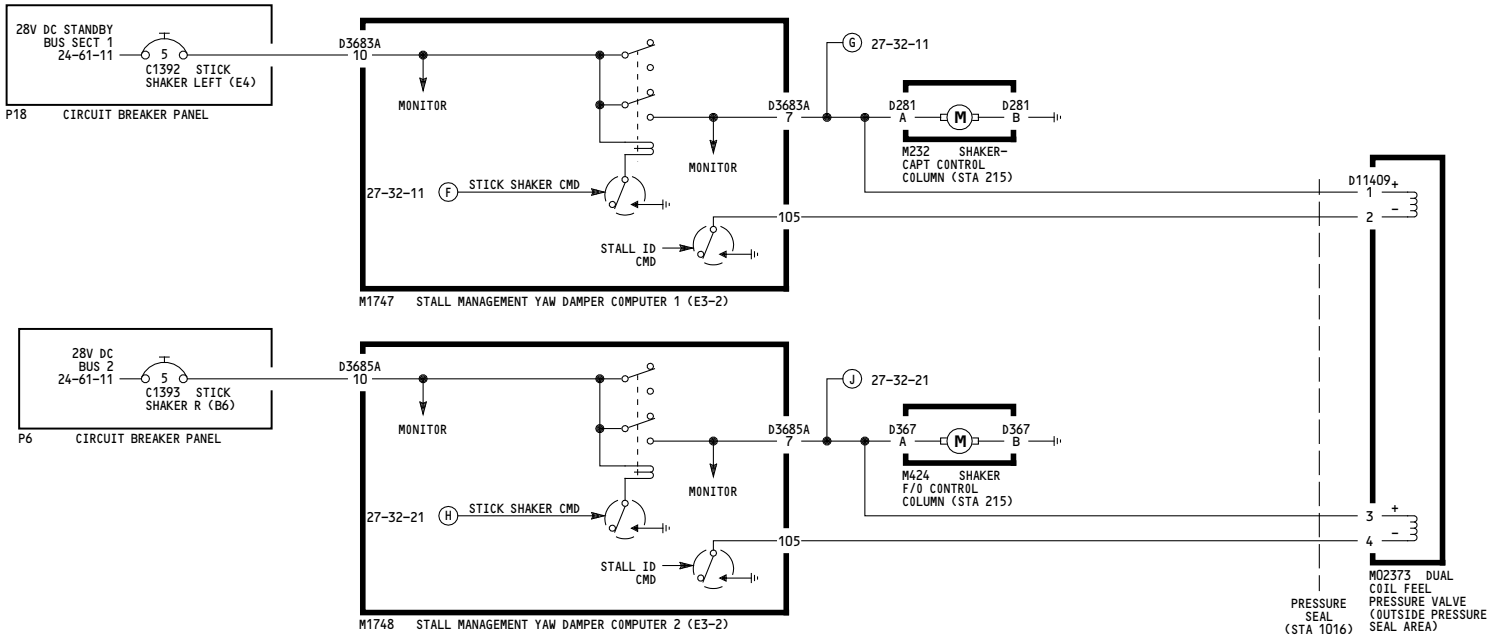

YC001-YC007

STALL IDENTIFICATION-ELEVATOR FEEL SHIFT

D280A203

Incorporates 27-1220

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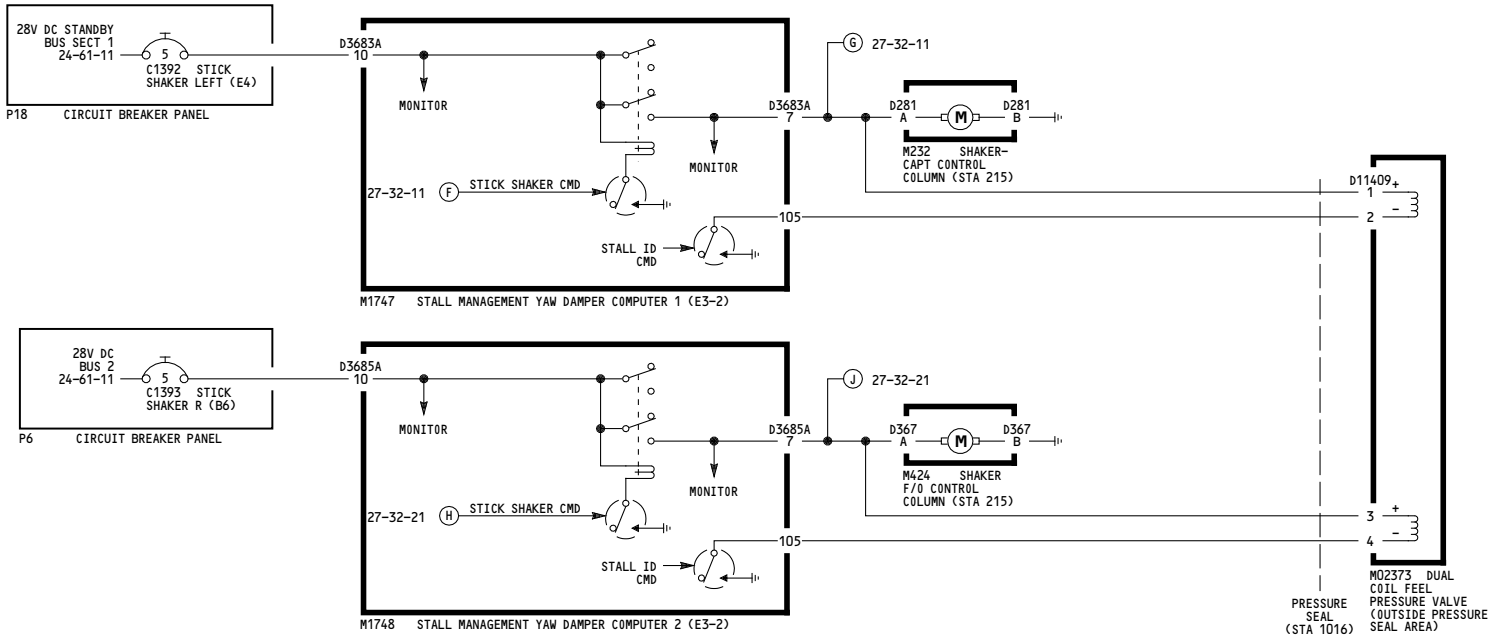

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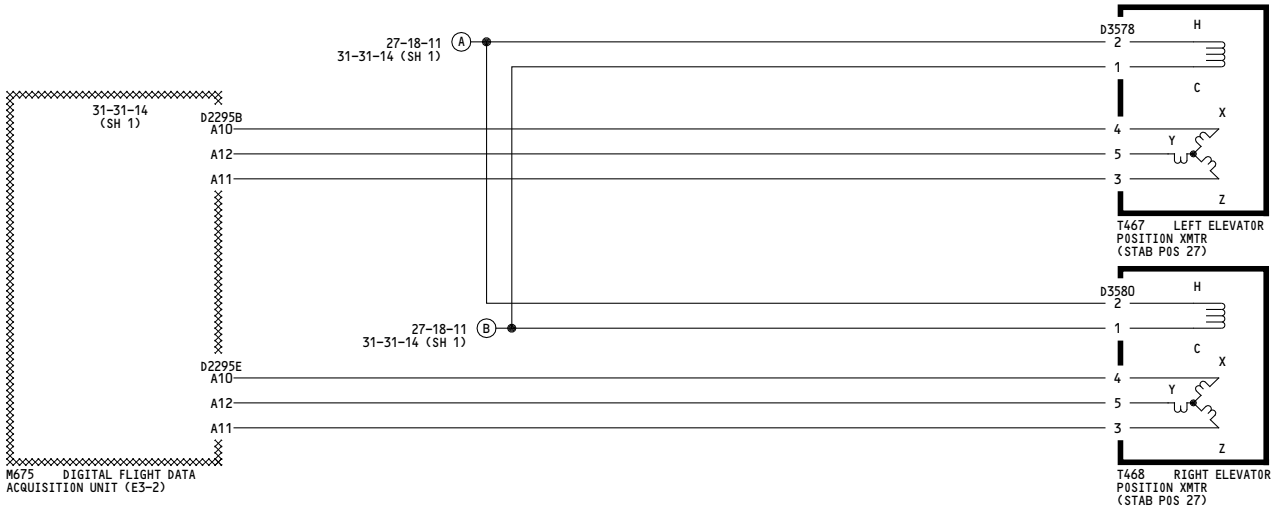

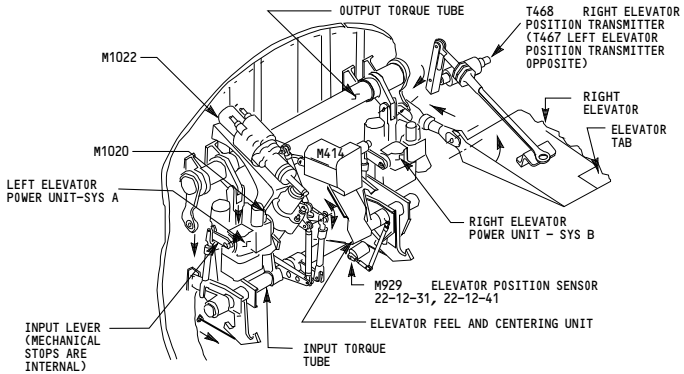

ALL	ELEVATOR POSITION INDICATION
	D280A203

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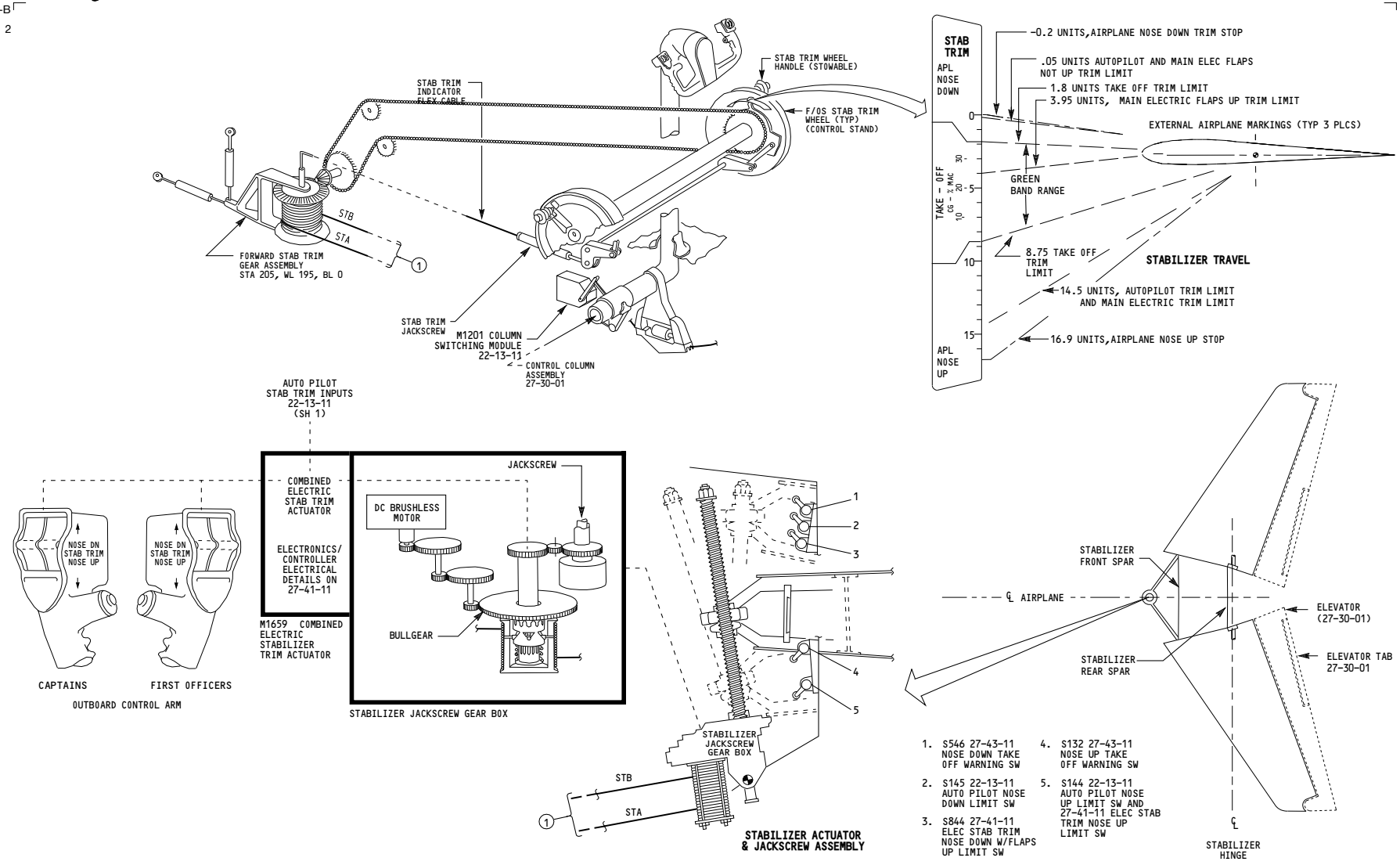

YC001-YK906

HORIZONTAL STABILIZERS

D280A203

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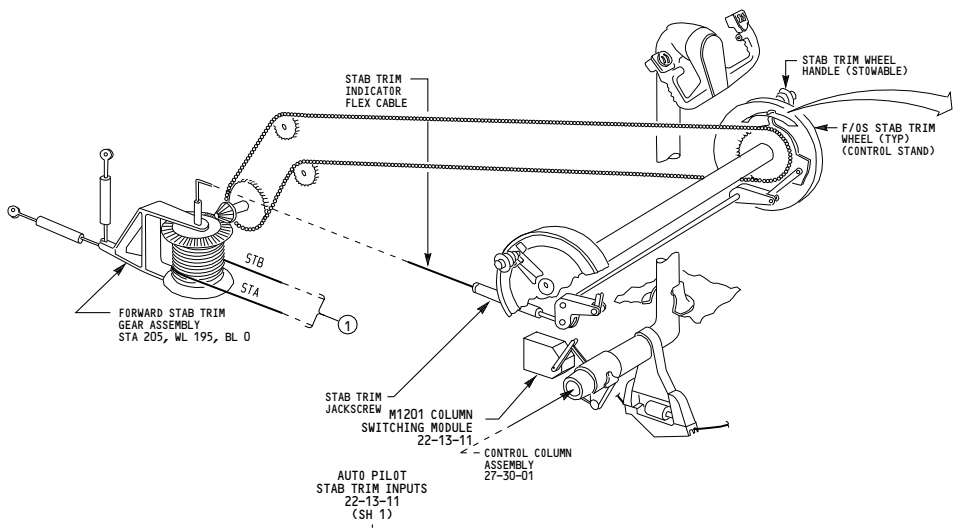
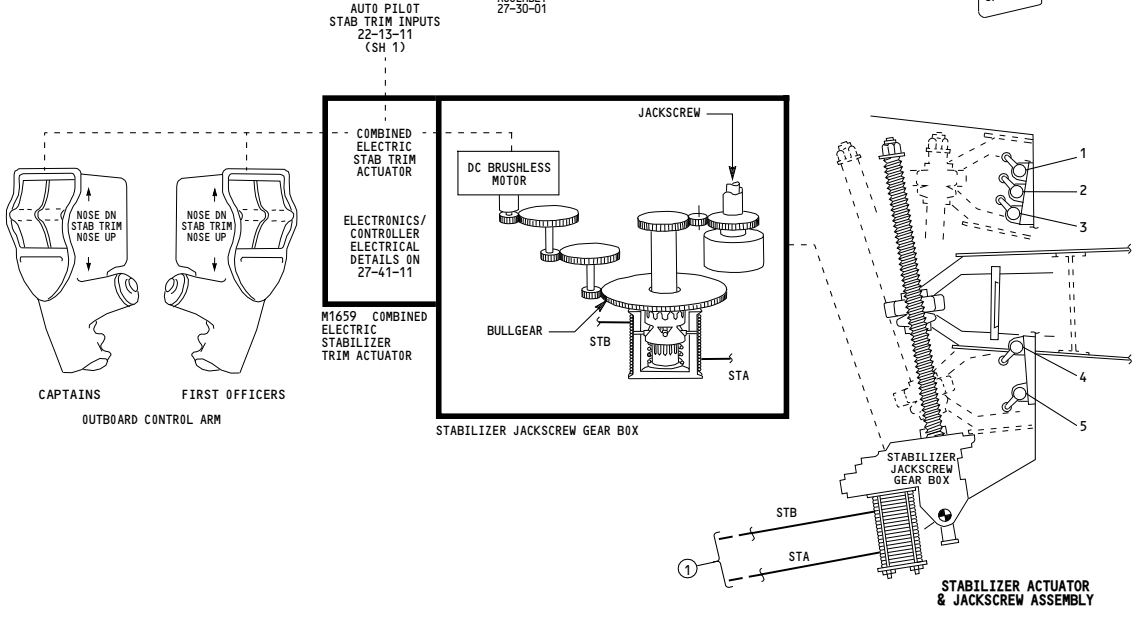
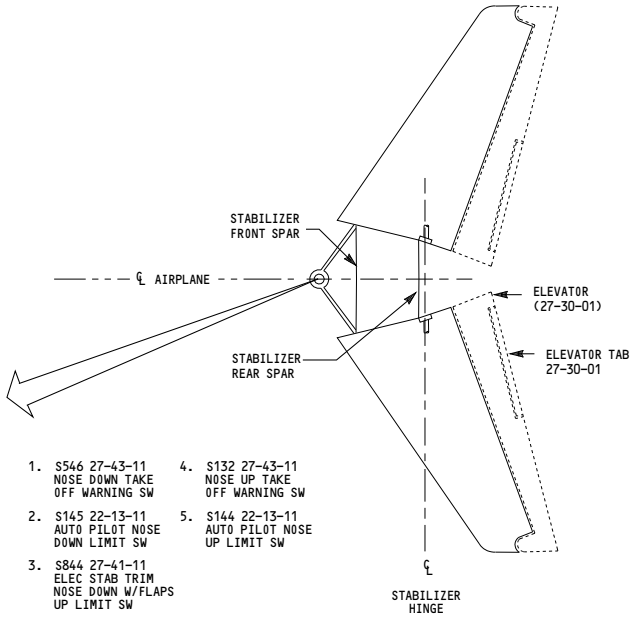


MINOR MODEL	WINGLETS	STOPS AND	STOPS ANU	TAKEOFF TRIM LIMITS AND	TAKEOFF TRIM LIMITS ANU	GREENBAND LIMITS AND	GREENBAND LIMITS ANU	AUTOPILOT & MAIN ELEC FLAPS NOT UP TRIM LIMITS AND	MAIN ELECTRIC FLAPS UP TRIM LIMIT AND	AUTOPILOT & MAIN ELECTRIC TRIM LIMIT ANU
-600	W/O	-0.20	16.90	2.00	8.85	2.25	8.60	0.05	4.10	14.50
	W/	-0.20	16.90	TBD	TBD	TBD	TBD	0.05	4.10	14.50
-700	W/O	-0.20	16.90	2.40	8.75	2.65	8.50	0.05	4.30	14.50
	W/	-0.20	16.90	3.60	9.95	3.95	9.70	0.05	4.30	14.50
-700 IGW	W/O	-0.20	16.90	2.40	8.75	2.65	8.50	0.05	4.30	14.50
	W/	-0.20	16.90	4.30	9.95	4.55	9.70	0.05	4.30	14.50
-800	W/O	-0.20	16.90	1.80	8.75	2.05	8.50	0.05	3.95	14.50
	W/	-0.20	16.90	2.40	8.75	2.65	8.50	0.05	3.95	14.50
-800 SFP	W/O	-0.20	16.90	2.40	8.75	2.65	8.50	0.05	3.95	14.50
	W/	-0.20	16.90	2.40	8.75	2.65	8.50	0.05	3.95	14.50
-900	W/O	-0.20	16.90	2.40	8.75	2.65	8.50	0.05	3.90	14.50
	W/	-0.20	16.90	2.40	8.75	2.65	8.50	0.05	3.90	14.50

ANU=AIRPLANE NOSE UP AND=AIRPLANE NOSE DOWN -600S DO NOT HAVE ANY WINGLET INSTALLATIONS





1. S546 27-43-11 NOSE DOWN TAKE OFF WARNING SW
2. S145 22-13-11 AUTO PILOT NOSE DOWN LIMIT SW
3. S844 27-41-11 ELEC STAB TRIM NOSE DOWN W/FLAPS UP LIMIT SW
4. S132 27-43-11 NOSE UP TAKE OFF WARNING SW
5. S144 22-13-11 AUTO PILOT NOSE UP LIMIT SW

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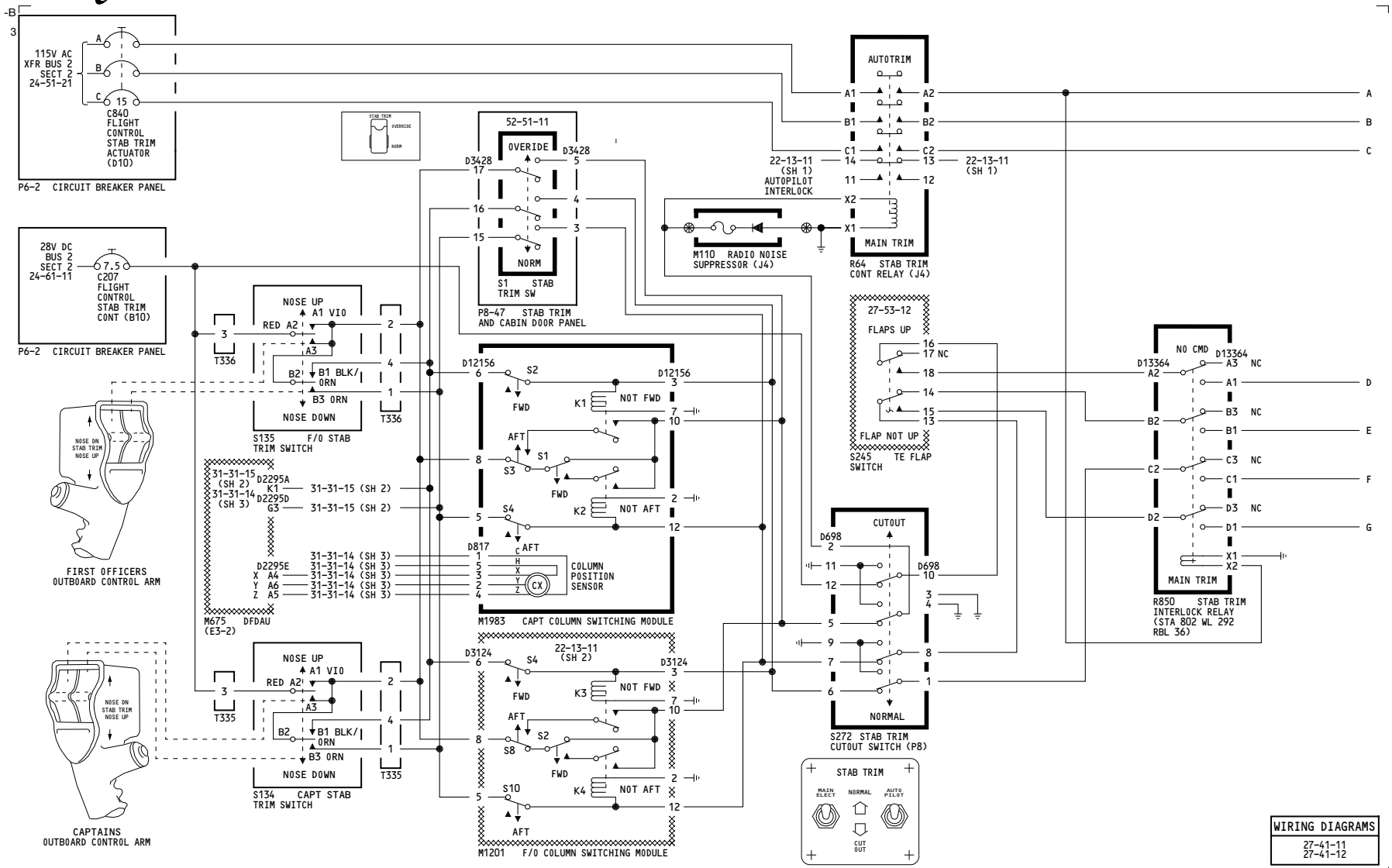

WIRING DIAGRAMS
27-41-11 27-41-12

YC001-YC011

HORIZONTAL STABILIZER TRIM CONTROL

Incorporates
27A1228 R01

D280A203

27-41-11

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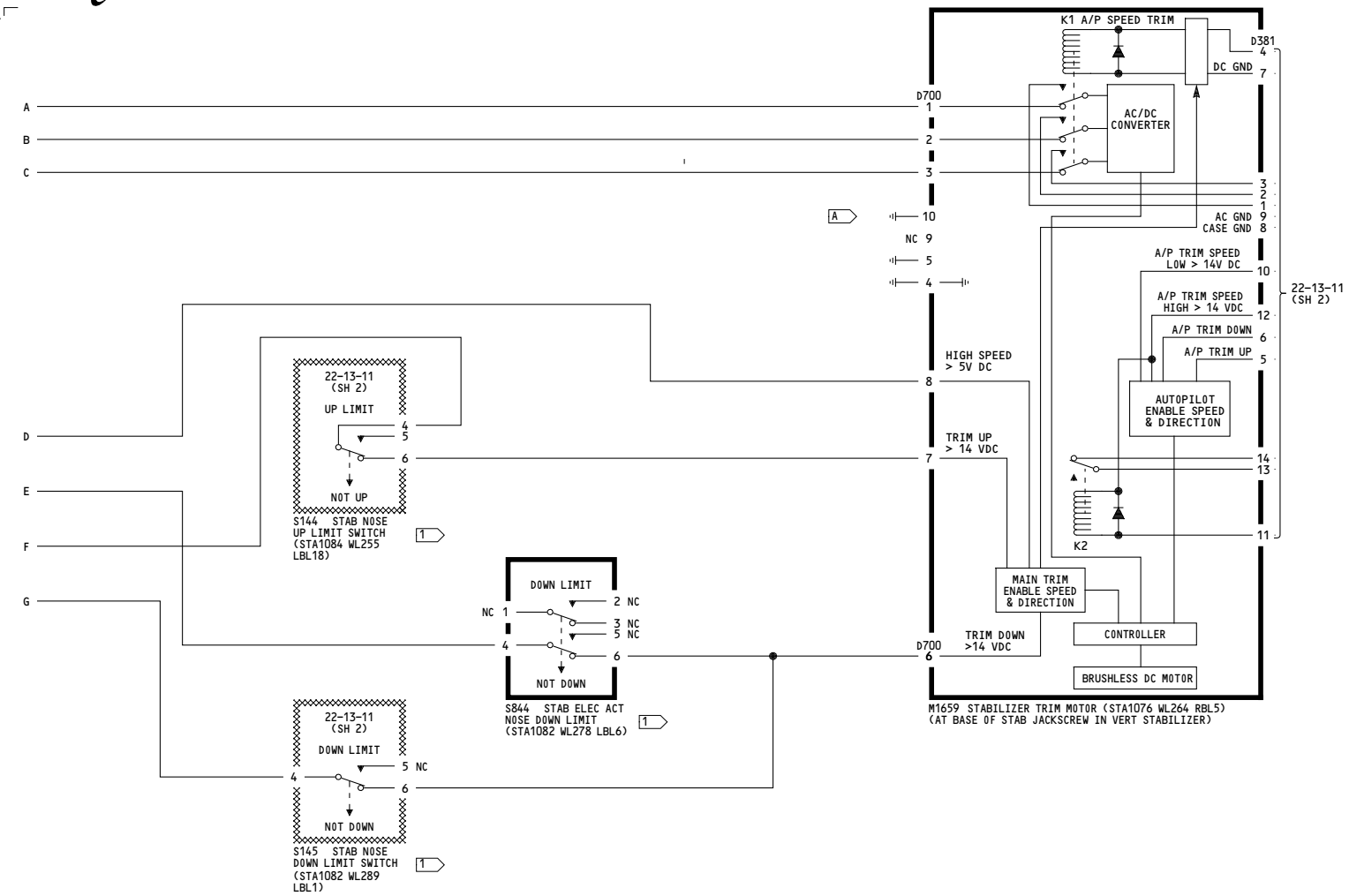
WIRING DIAGRAMS
27-41-11
27-41-12



NOTES:

1. SWITCHES LOCATED NEAR STABILIZER JACKSCREW IN VERTICAL STABLIZER

YC001-YC011

HORIZONTAL STABILIZER TRIM CONTROL

D280A203

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27A1228 R01

27-41-11

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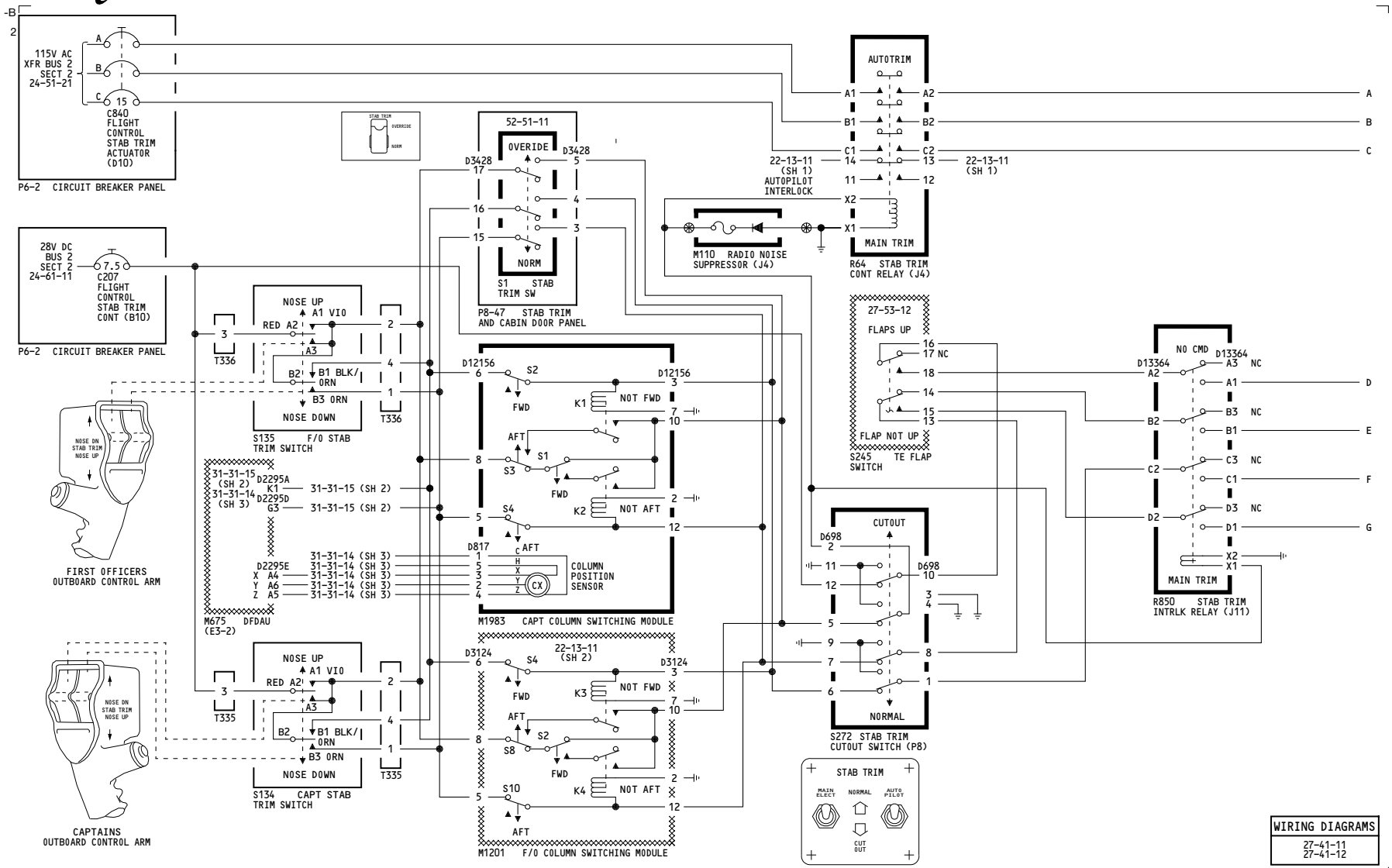

YC012-YC030	**HORIZONTAL STABILIZER TRIM CONTROL**
	D280A203

WIRING DIAGRAMS
27-41-11
27-41-12

27-41-11

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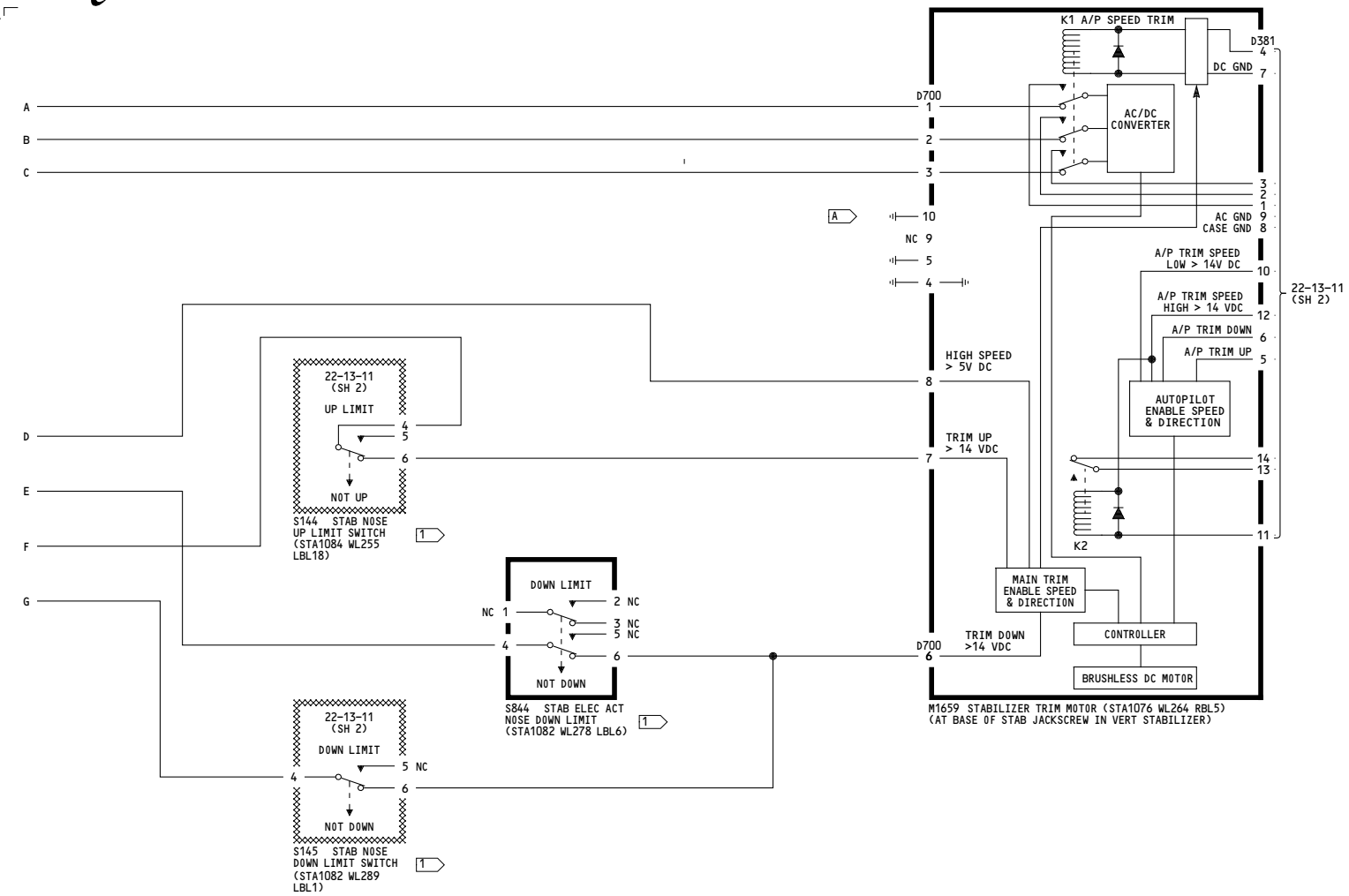
WIRING DIAGRAMS
27-41-11
27-41-12



NOTES:

1 SWITCHES LOCATED NEAR STABILIZER JACKSCREW IN VERTICAL STABLIZER

YC012-YC030

HORIZONTAL STABILIZER TRIM CONTROL

D280A203

27-41-11

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Sheet 2
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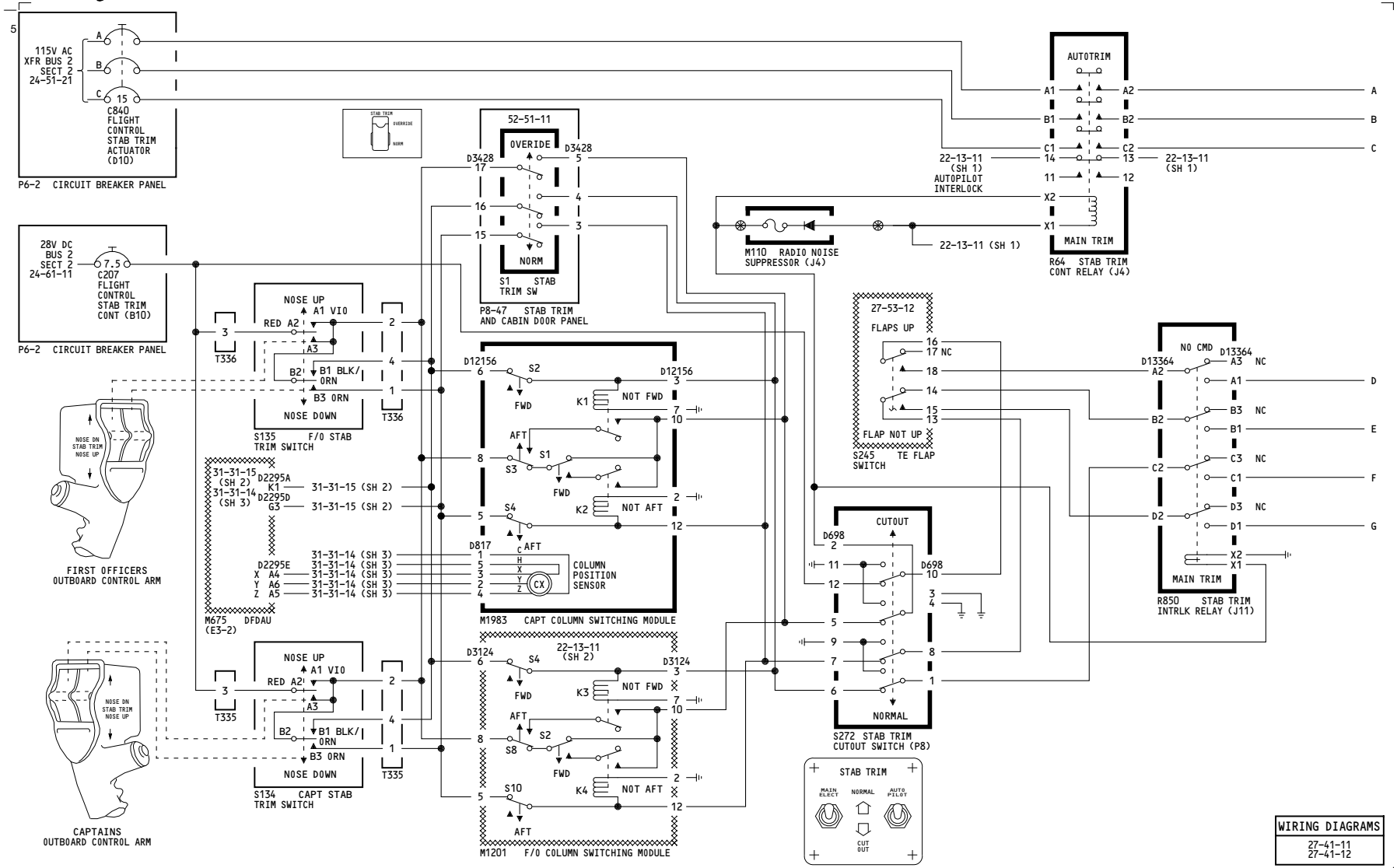

WIRING DIAGRAMS
27-41-11 27-41-12

YK901-YK912, YK918-YK919, YL401-YL429

HORIZONTAL STABILIZER TRIM CONTROL

D280A203

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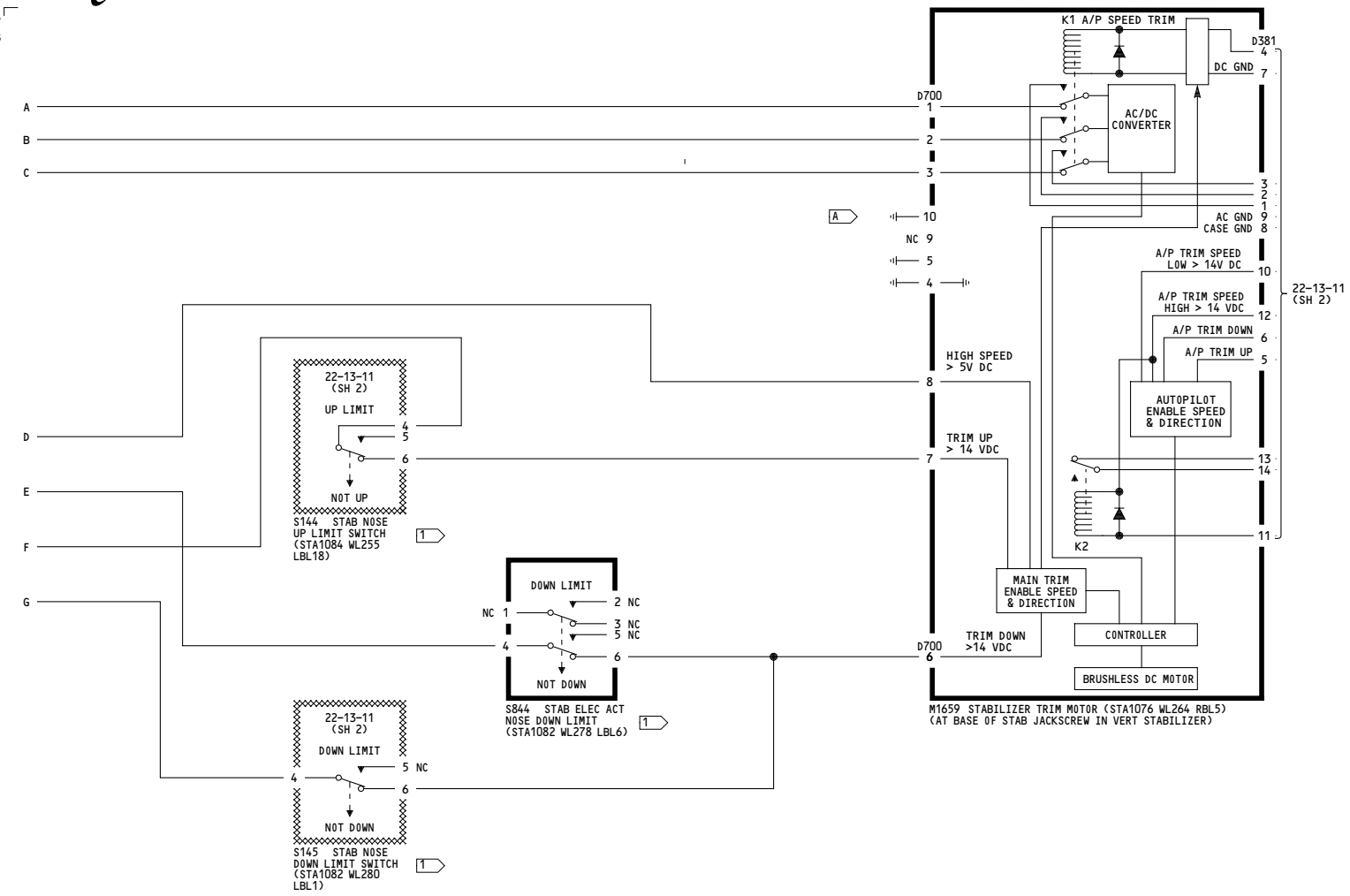
WIRING DIAGRAMS
27-41-11
27-41-12



NOTES:

1 SWITCHES LOCATED NEAR STABILIZER JACKSCREW IN VERTICAL STABLIZER

YK901-YK912, YK918-YK919, YL401-YL429	**HORIZONTAL STABILIZER TRIM CONTROL** D280A203

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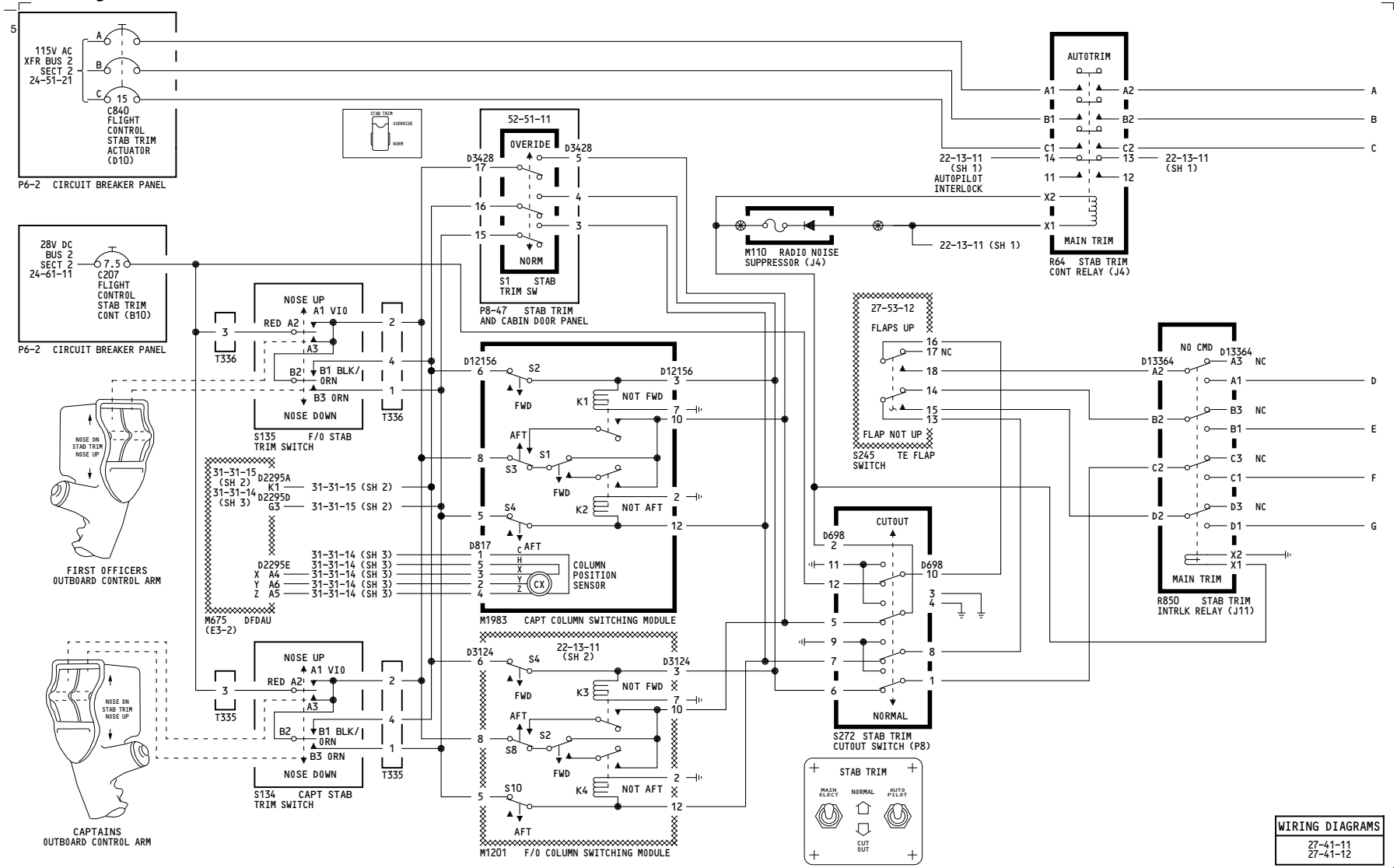

WIRING DIAGRAMS
27-41-11 27-41-12

YM643-YM652

HORIZONTAL STABILIZER TRIM CONTROL

D280A203

27-41-11

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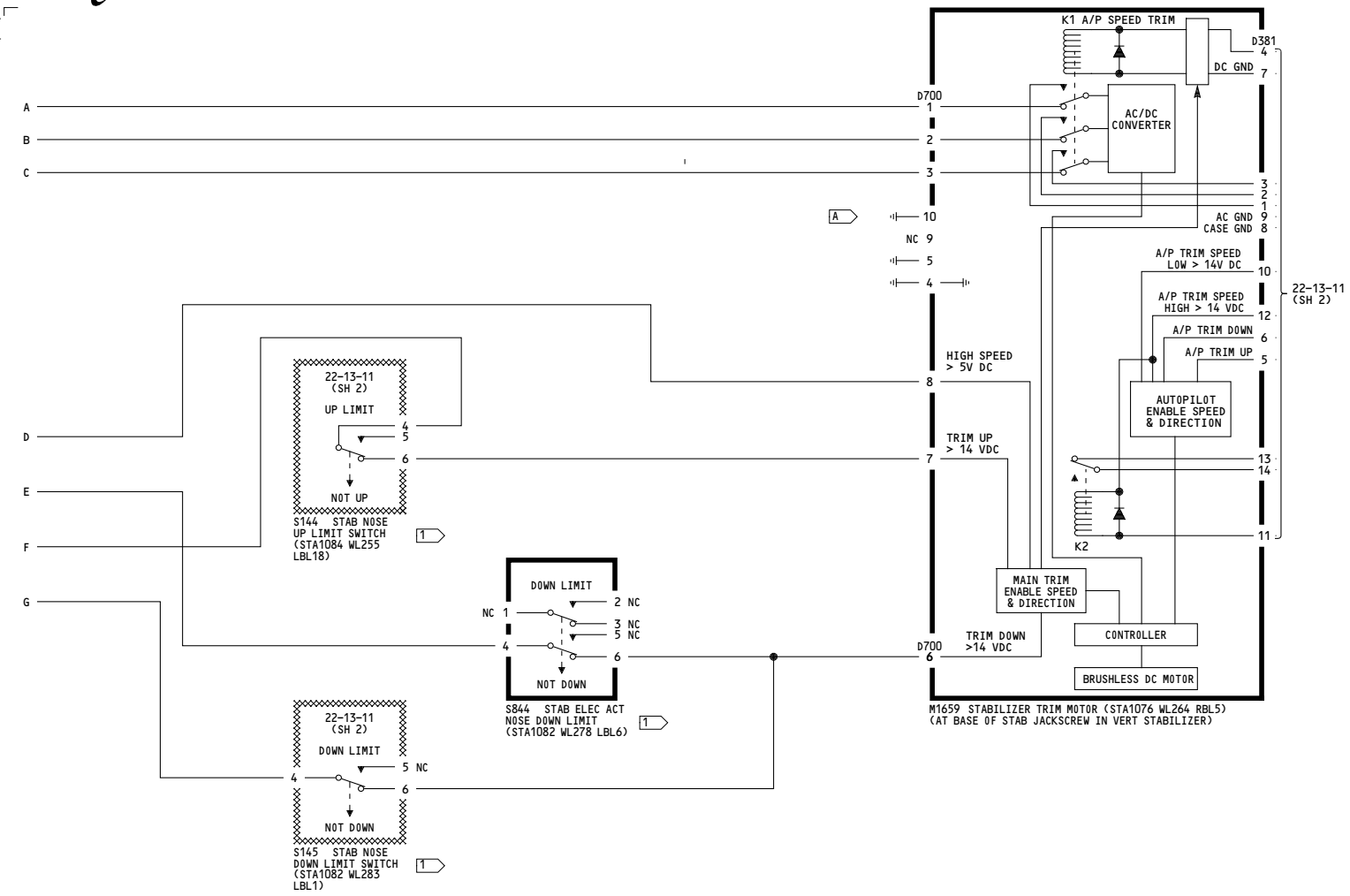
WIRING DIAGRAMS
27-41-11
27-41-12



NOTES:

1 SWITCHES LOCATED NEAR STABILIZER JACKSCREW IN VERTICAL STABLIZER

YM643-YM652	HORIZONTAL STABILIZER TRIM CONTROL
	D280A203

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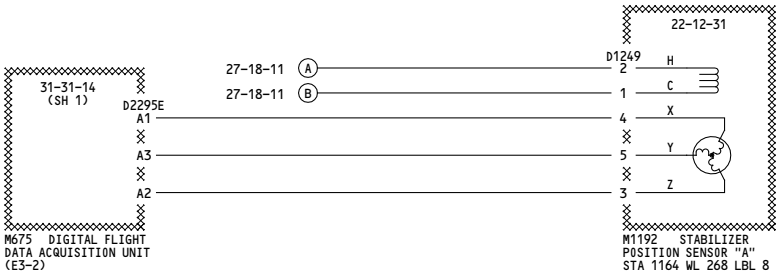

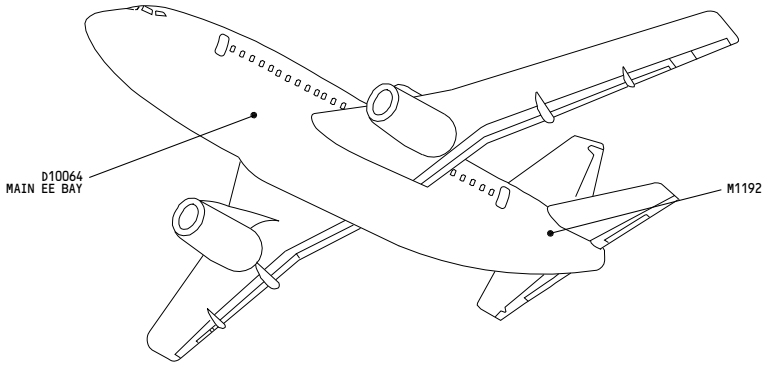

ALL

HORIZONTAL STABILIZER TRIM INDICATION

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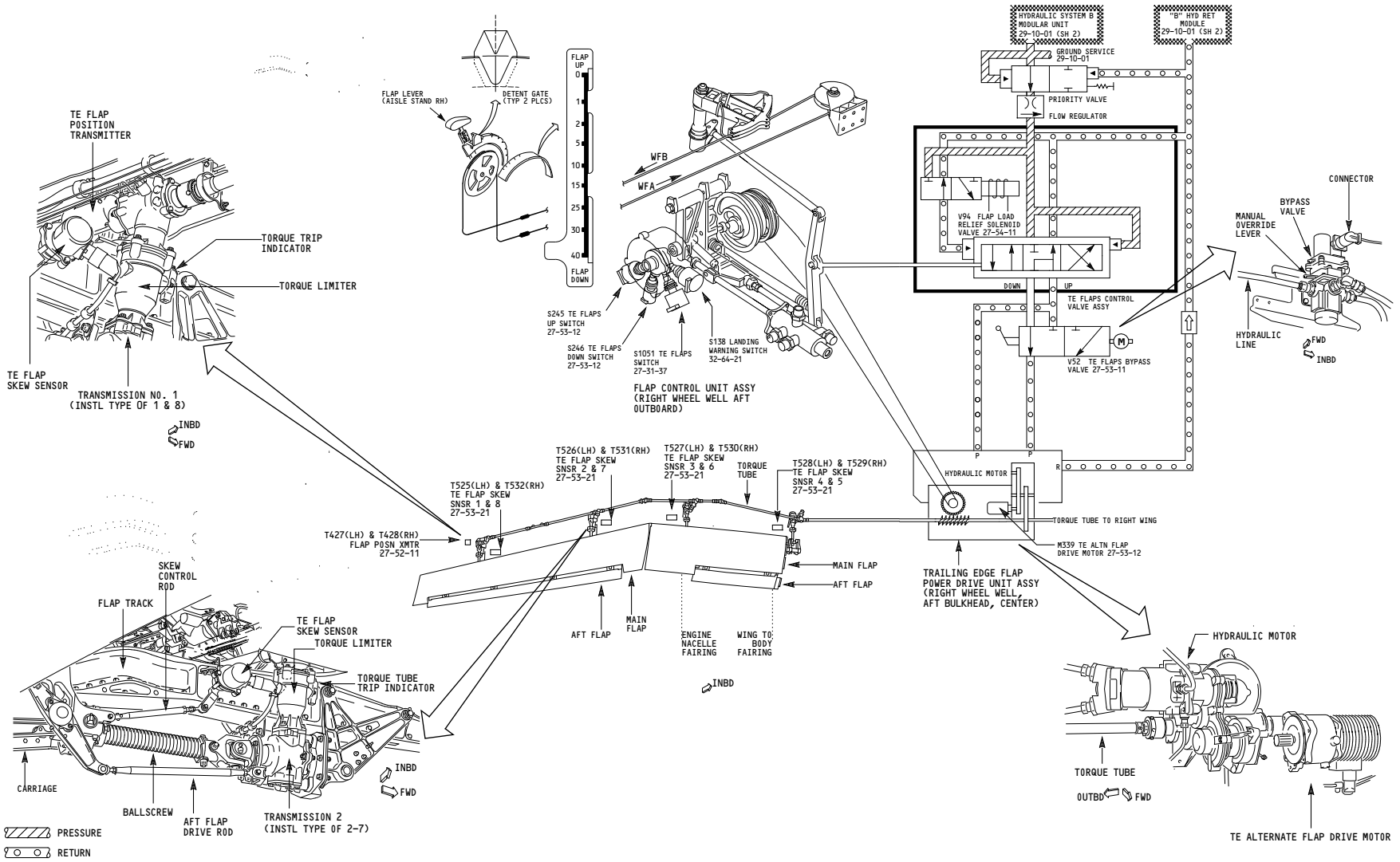

YC001-YK906, YM643-YM670	**HIGHLIFT SYSTEM OVERVIEW**
	D280A203

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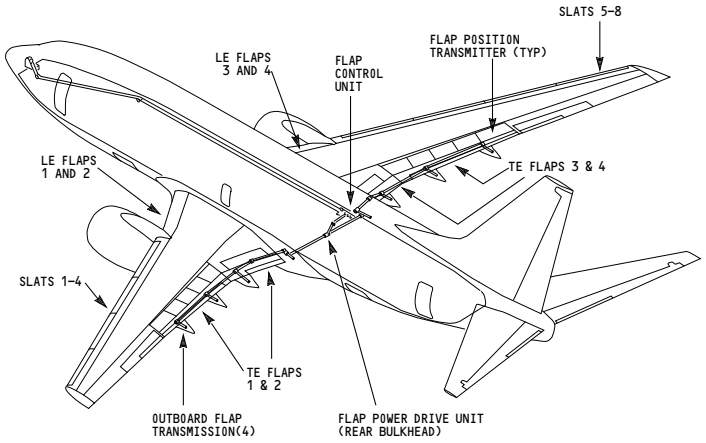

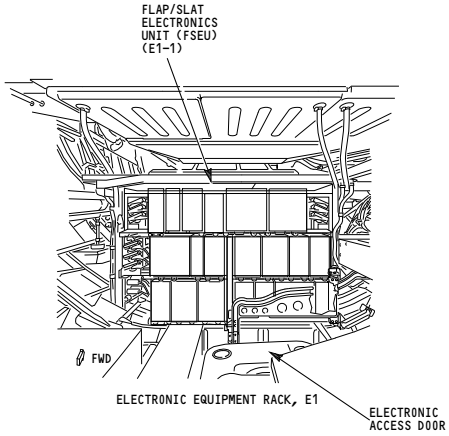

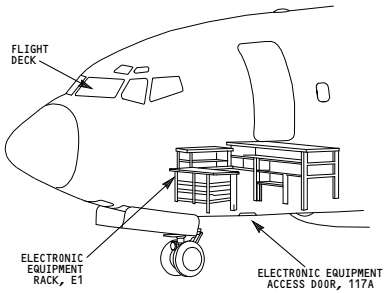

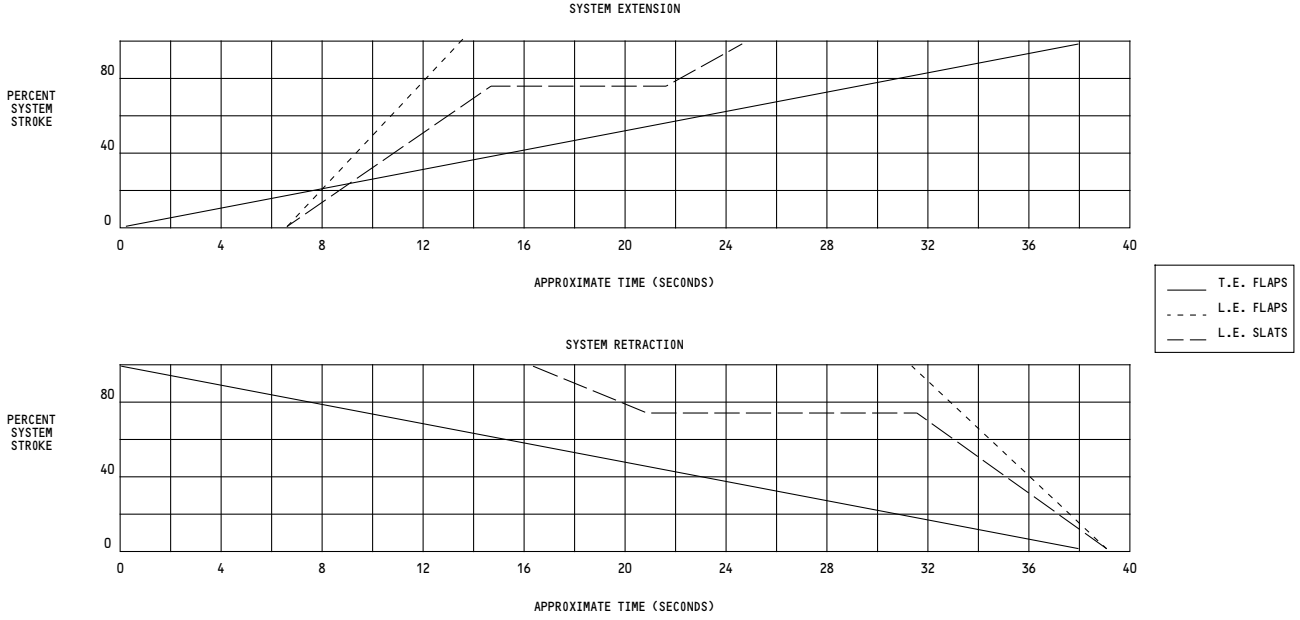

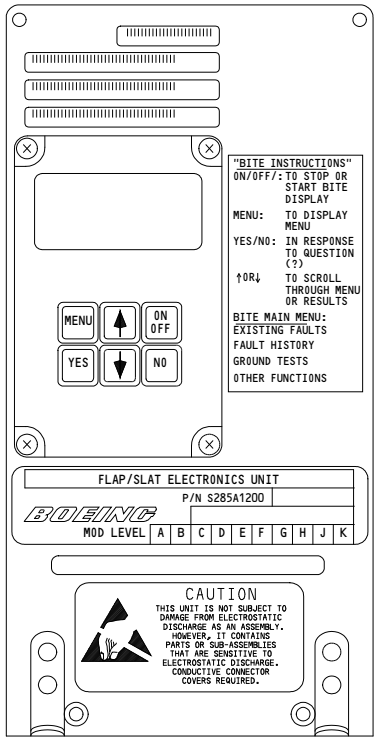

M1746 FLAP/SLAT ELECTRONICS UNIT (FSEU)

YC001-YK906, YM643-YM670

HIGHLIFT SYSTEM OVERVIEW

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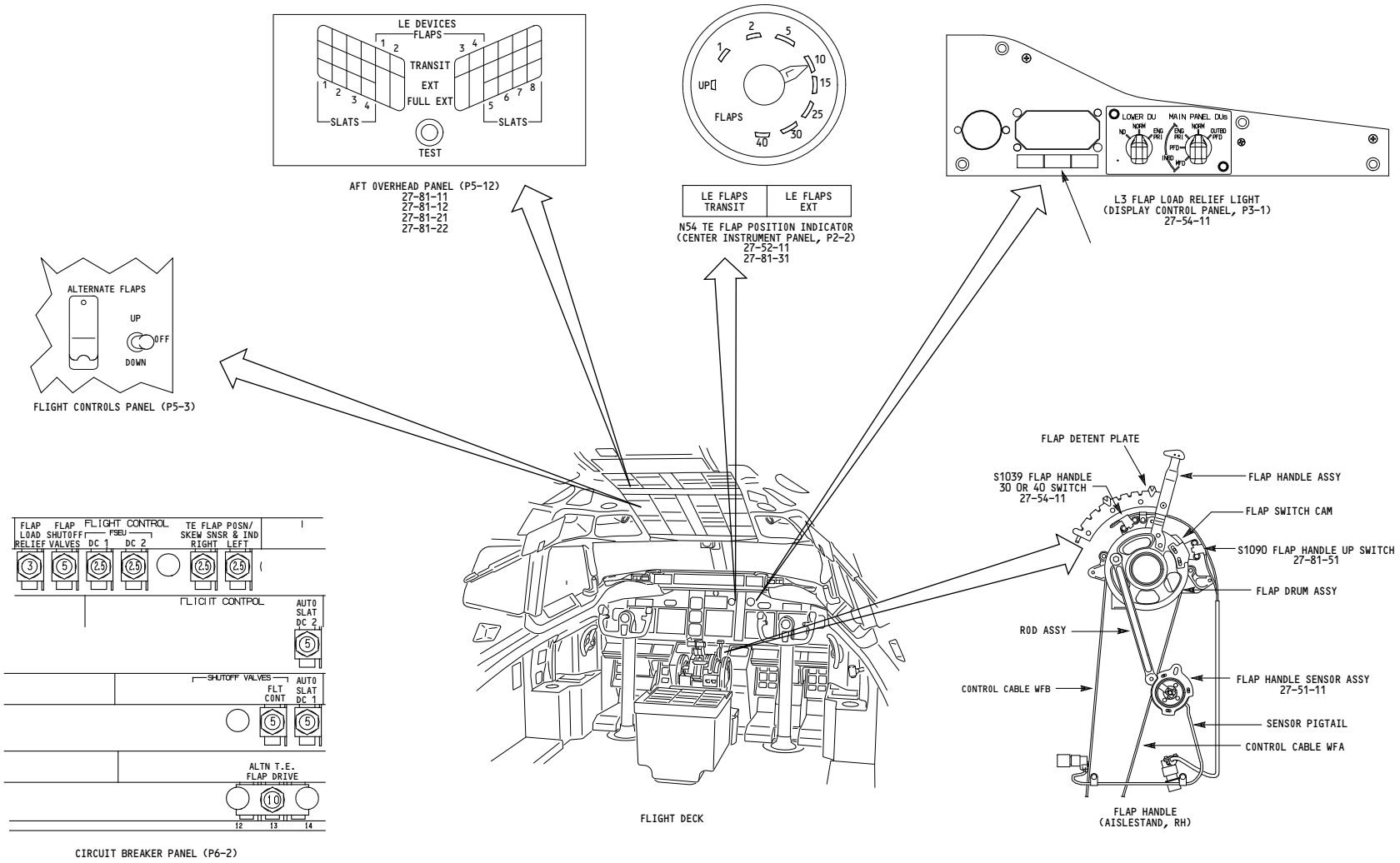

YC001-YK906, YM643-YM670	**HIGHLIFT SYSTEM OVERVIEW**
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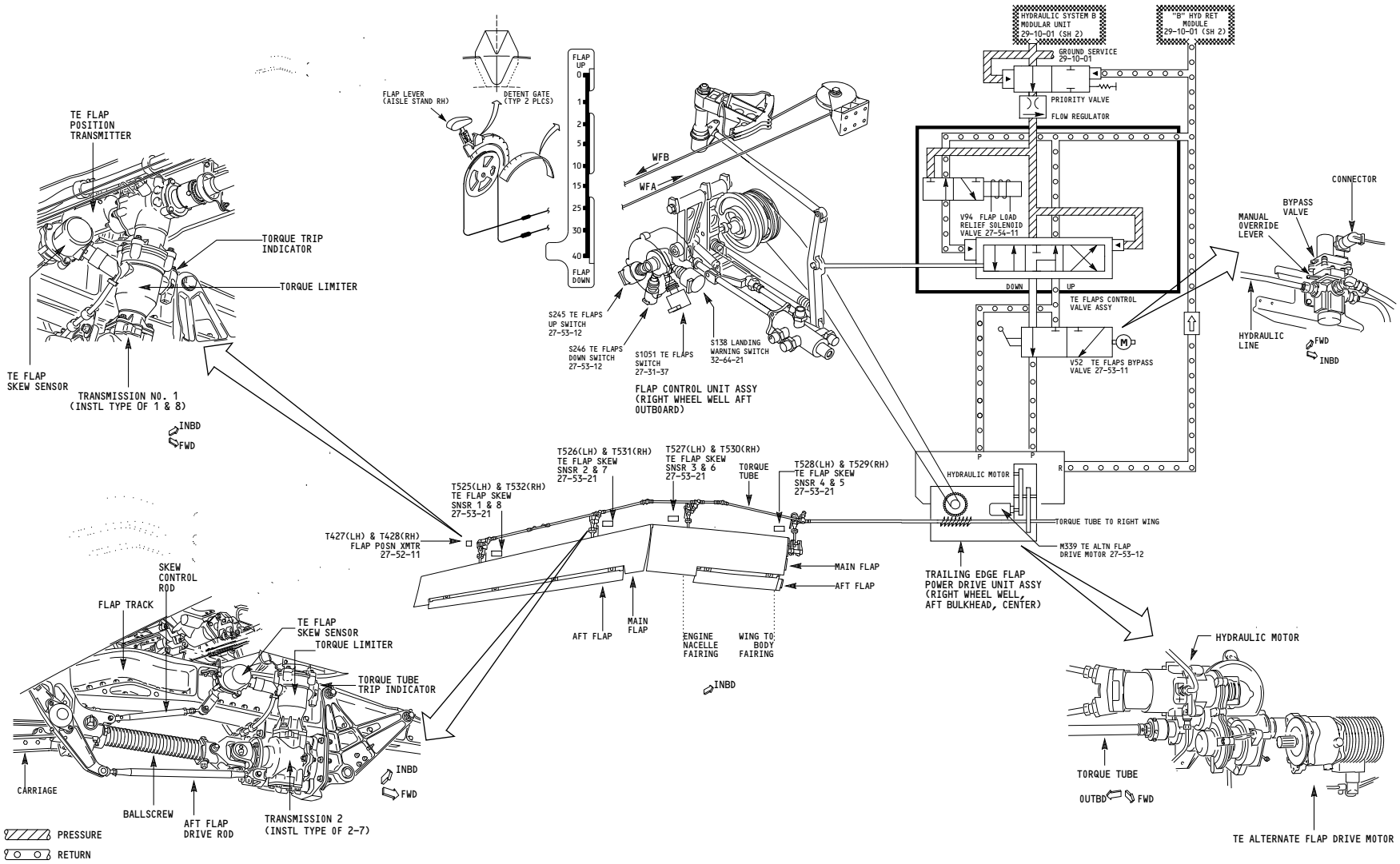

YK907-YL430	**HIGHLIFT SYSTEM OVERVIEW**
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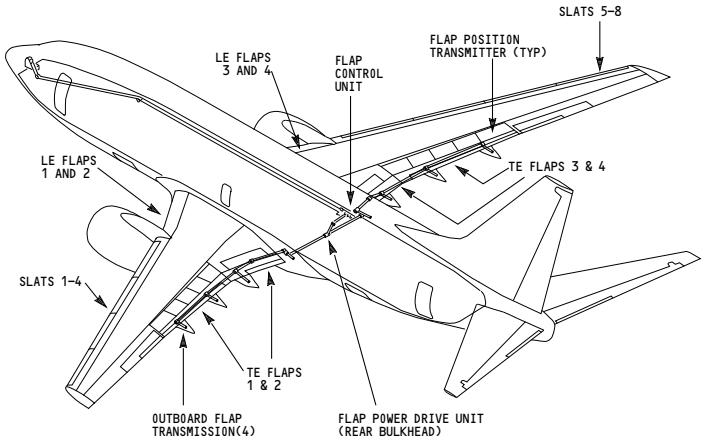

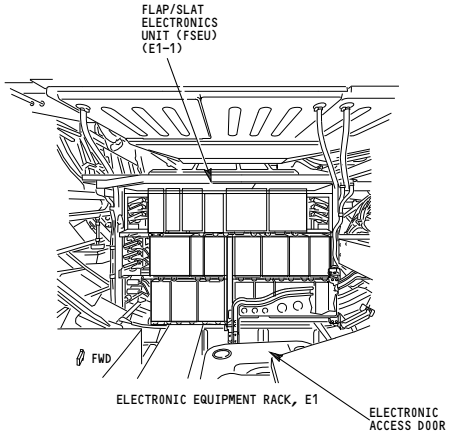

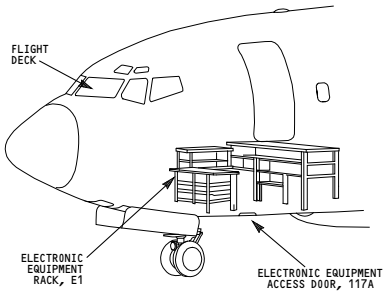

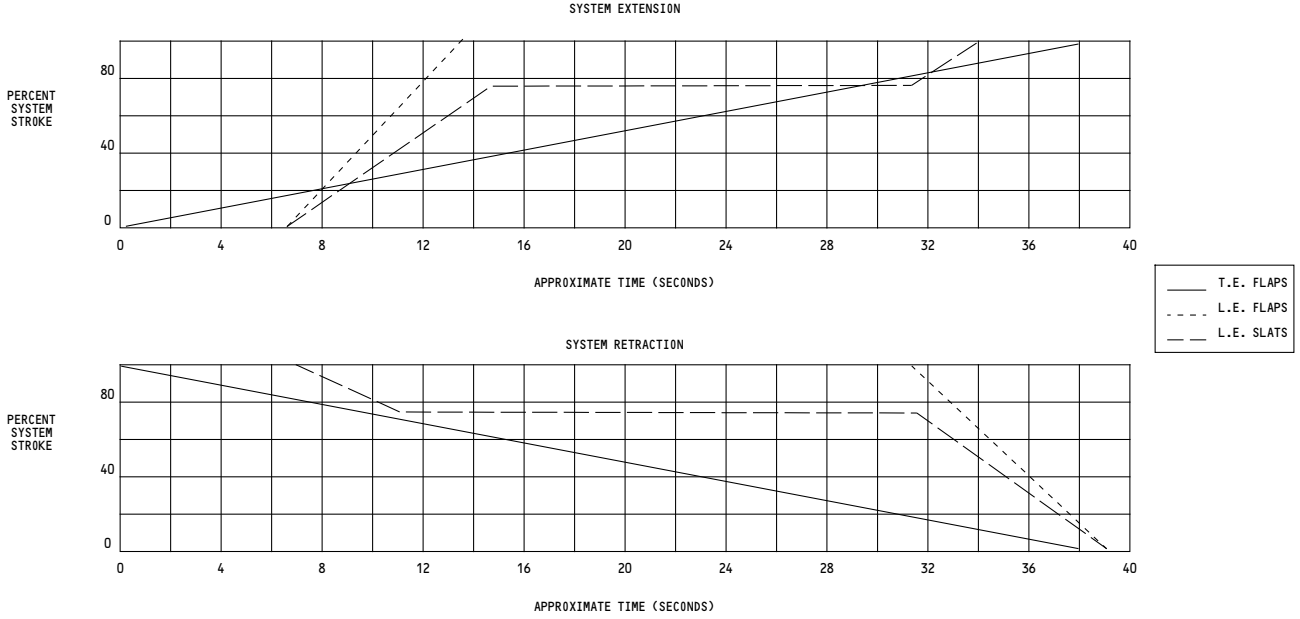

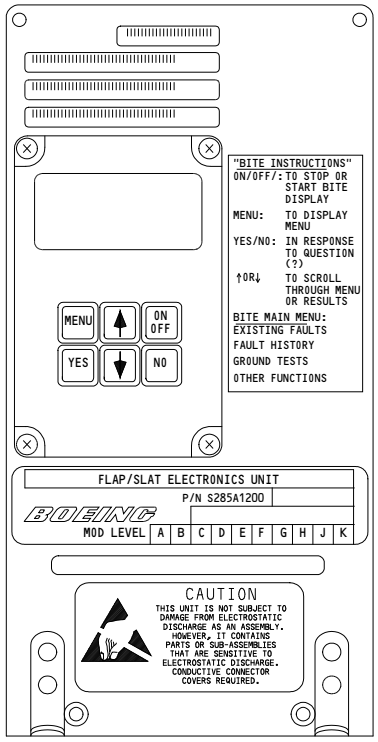

M1746 FLAP/SLAT ELECTRONICS UNIT (FSEU)

YK907-YL430

HIGHLIFT SYSTEM OVERVIEW

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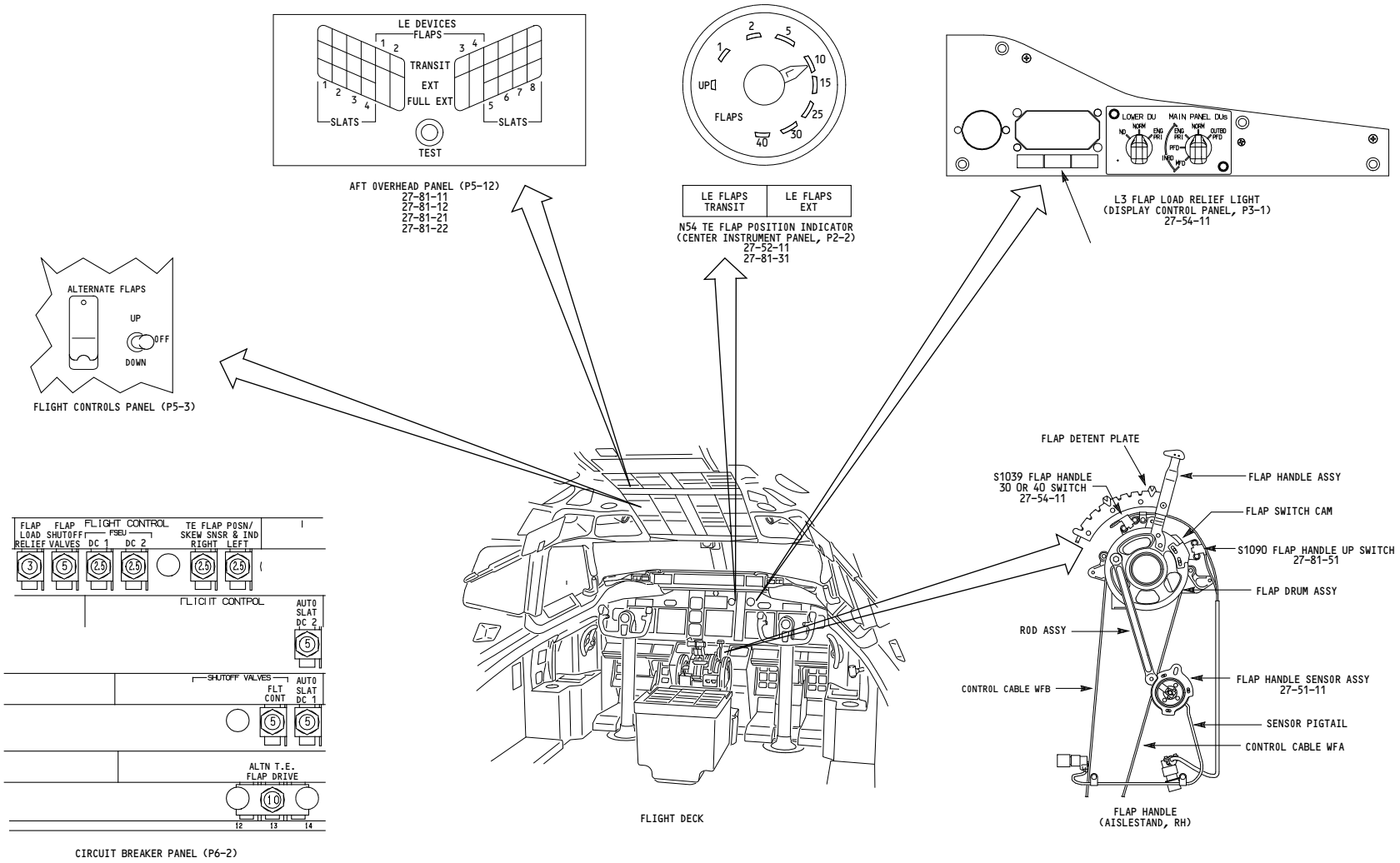

YK907-YL430	**HIGHLIFT SYSTEM OVERVIEW**
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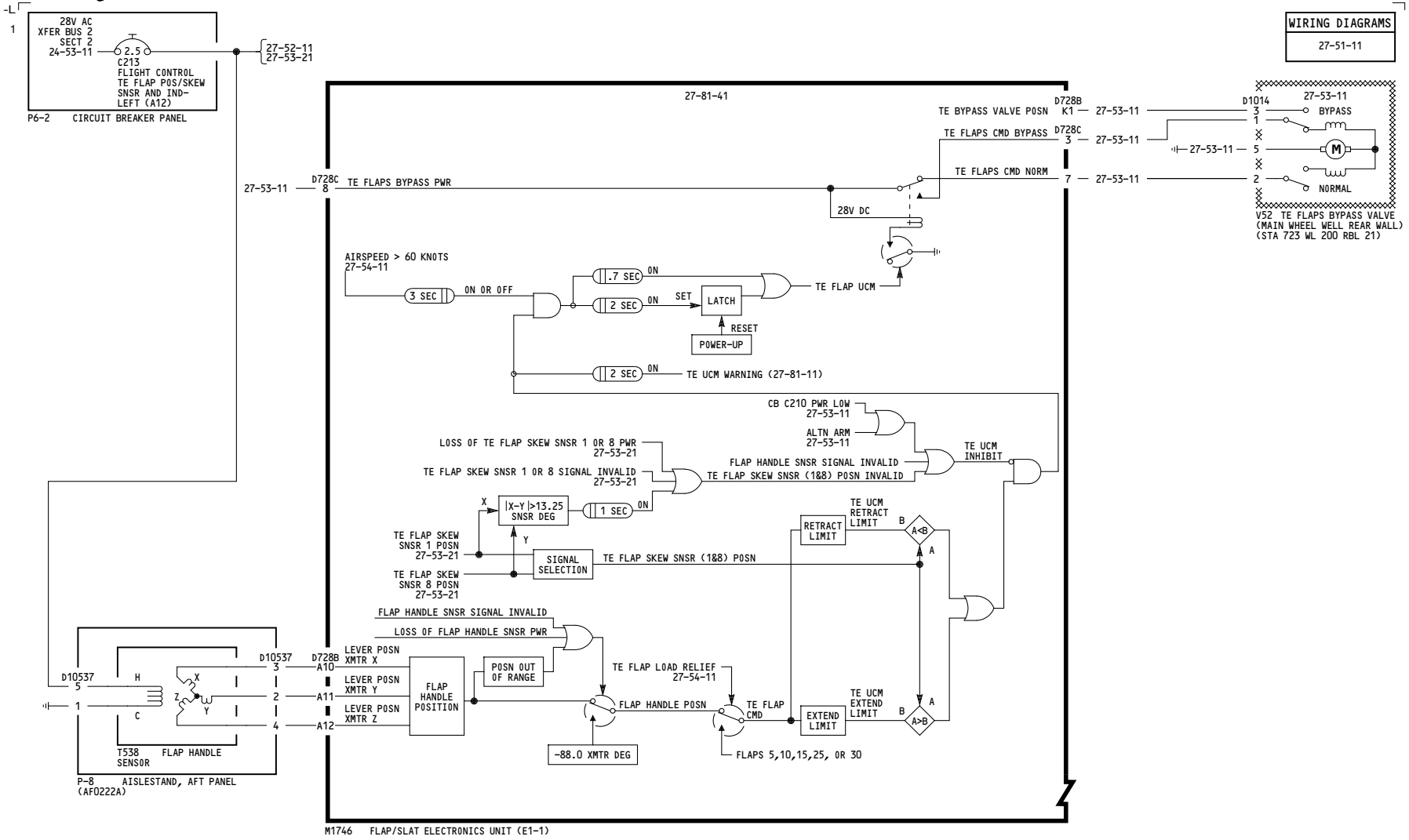
WIRING DIAGRAMS
27-51-11



ALL

TRAILING EDGE UNCOMMANDED MOTION PROTECTION

D280A203

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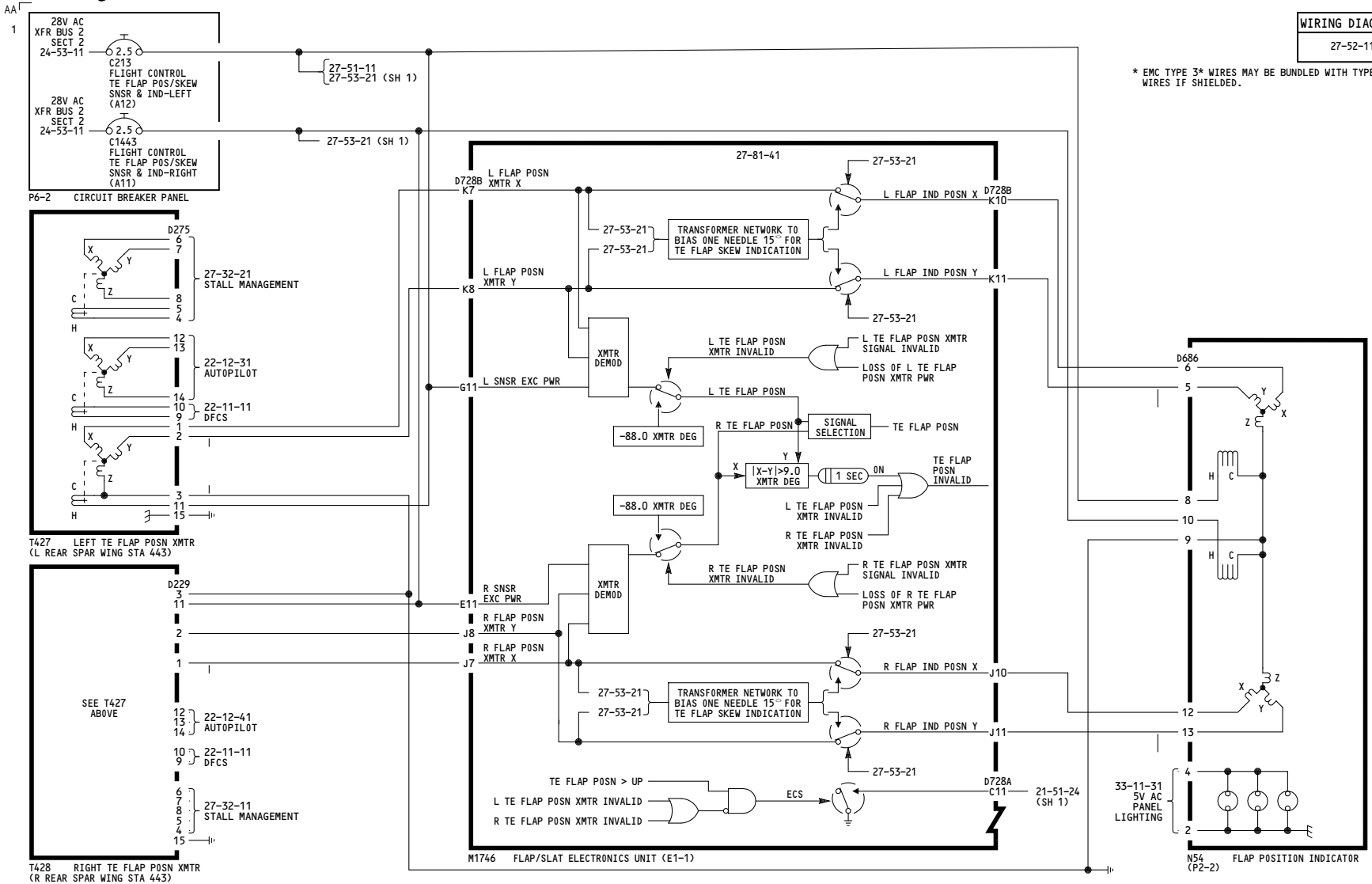
WIRING DIAGRAMS
27-52-11

* EMC TYPE 3* WIRES MAY BE BUNDLED WITH TYPE 2 WIRES IF SHIELDED.



ALL

TRAILING EDGE FLAP POSITION INDICATION

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27-52-11

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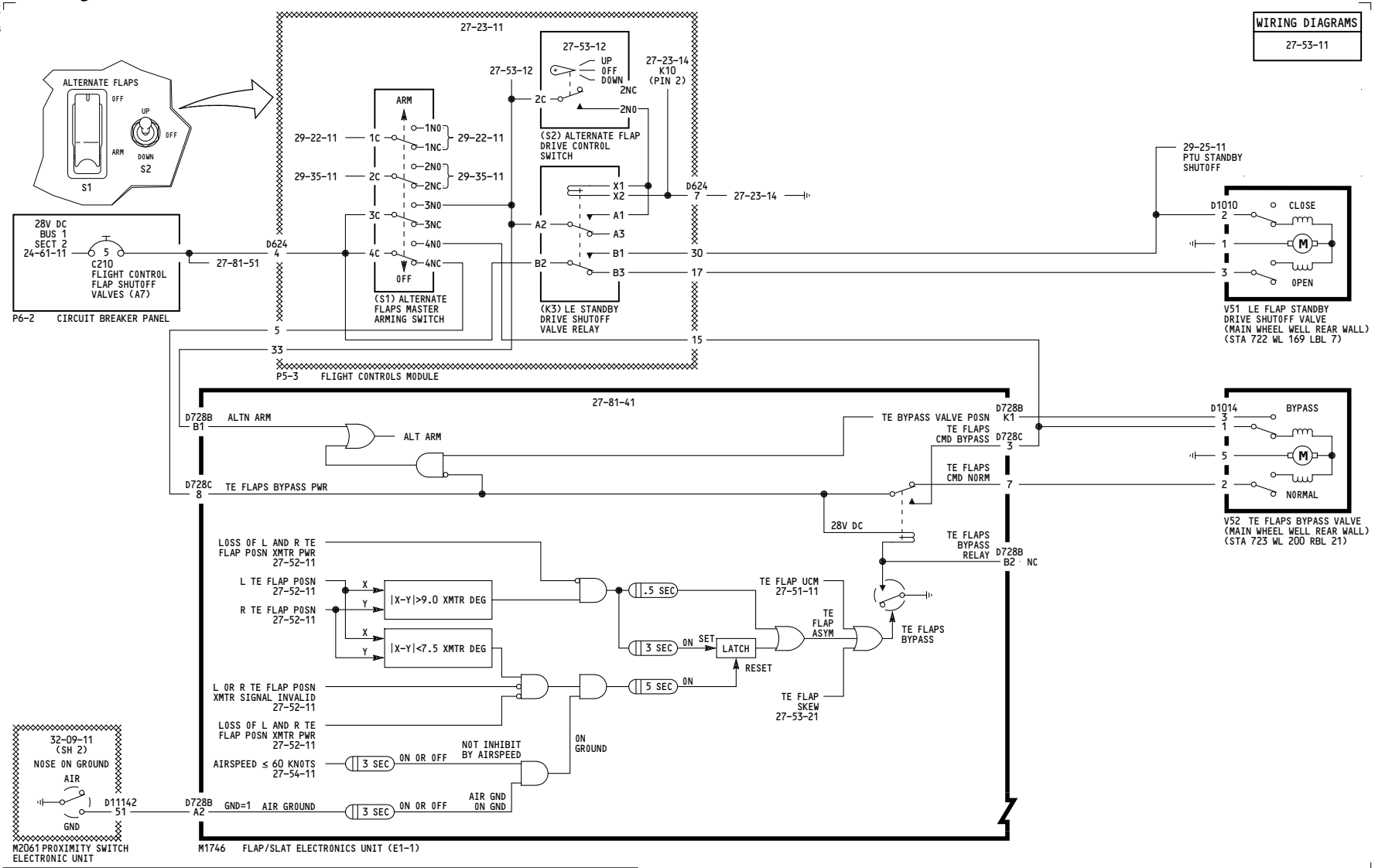
WIRING DIAGRAMS
27-53-11



YC001-YC007

ALTERNATE TRAILING AND LEADING EDGE FLAP DRIVE

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27A1219

27-53-11

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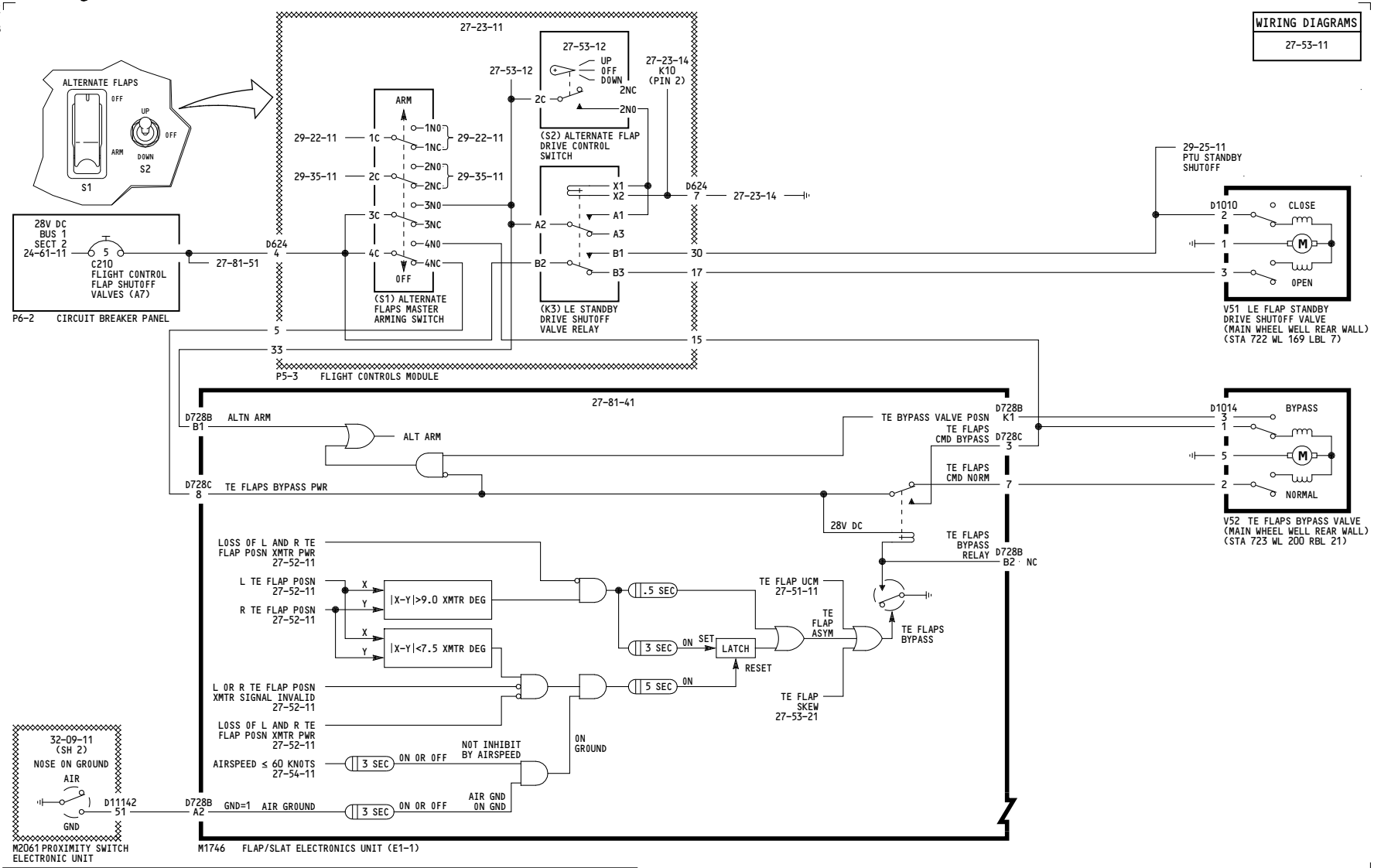

YC008-YM670

ALTERNATE TRAILING AND LEADING EDGE FLAP DRIVE

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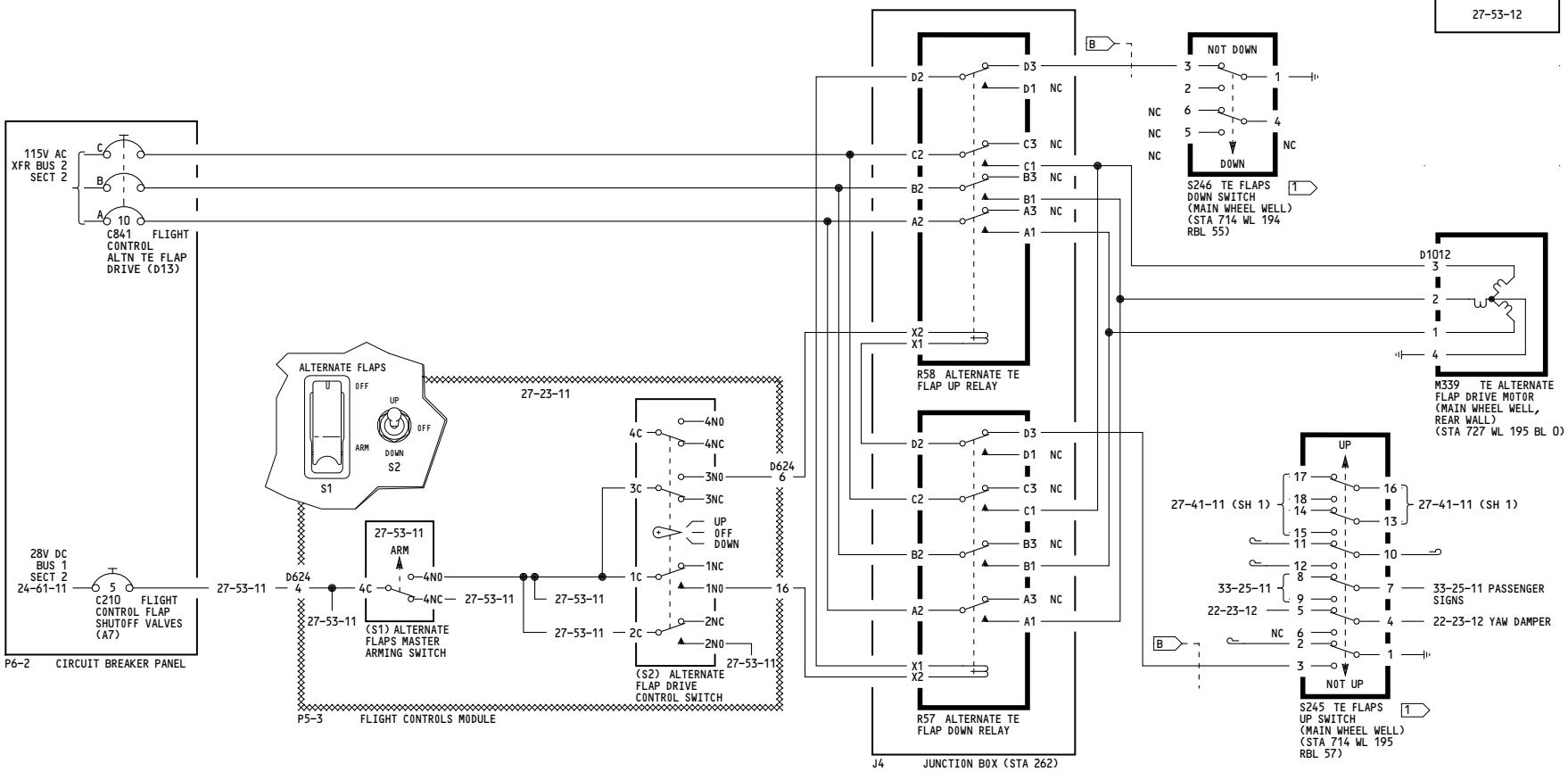
WIRING DIAGRAMS
27-53-12



NOTES:

1 SWITCHES LOCATED ON FLAP CONTROL UNIT ASSEMBLY IN MAIN WHEEL WELL, REAR WALL, RIGHT SIDE NEAR CEILING. (27-50-01)

YC001-YK912, YK918-YK919, YL401-YL429, YM643-YM652	**TRAILING EDGE ALTERNATE FLAP DRIVE**
	D280A203

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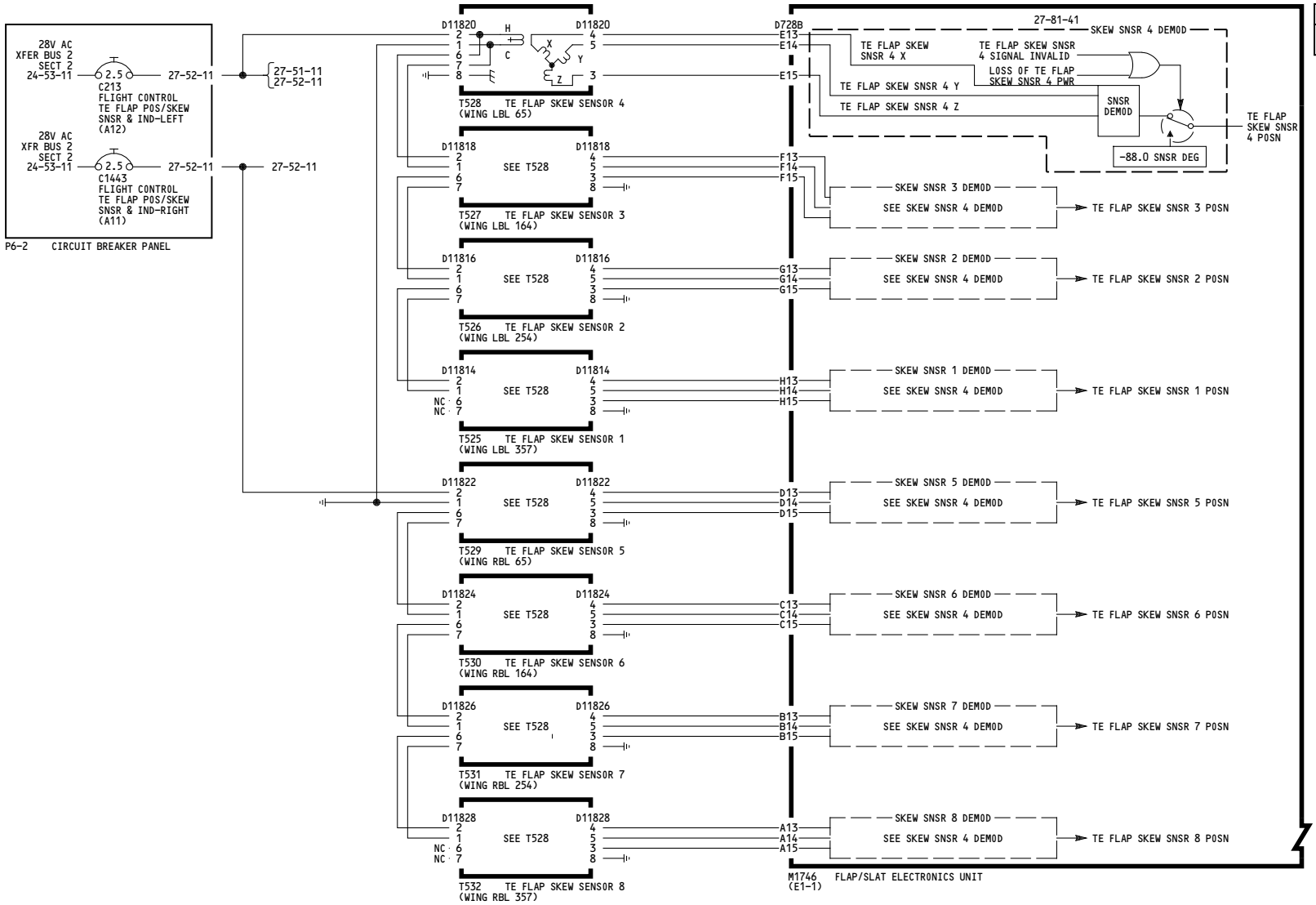

WIRING DIAGRAMS
27-53-21

ALL

TRAILING EDGE FLAP SKEW DETECTION

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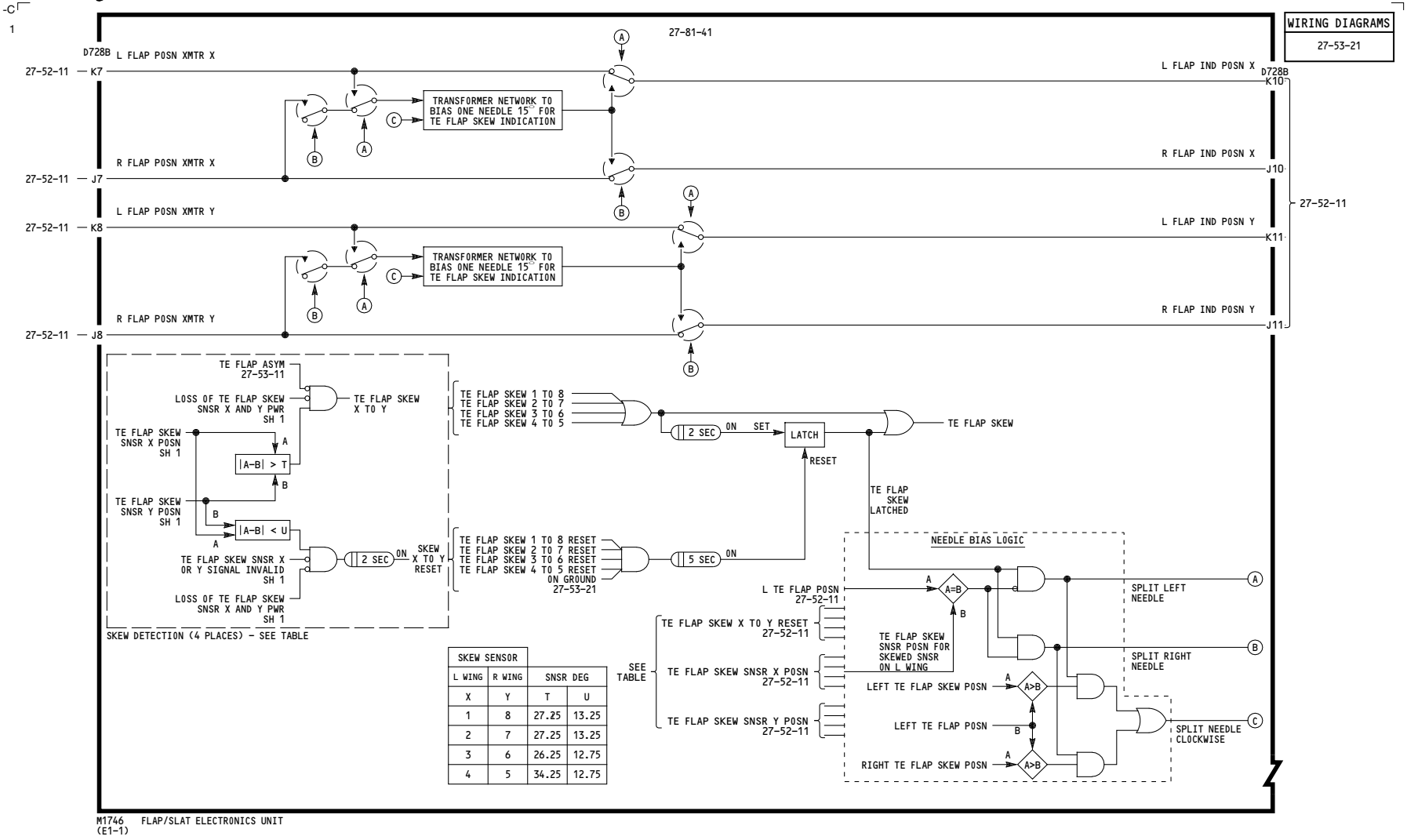

SKEW SENSOR			
L WING	R WING	SNSR DEG	
X	Y	T	U
1	8	27.25	13.25
2	7	27.25	13.25
3	6	26.25	12.75
4	5	34.25	12.75

ALL

TRAILING EDGE FLAP SKEW DETECTION

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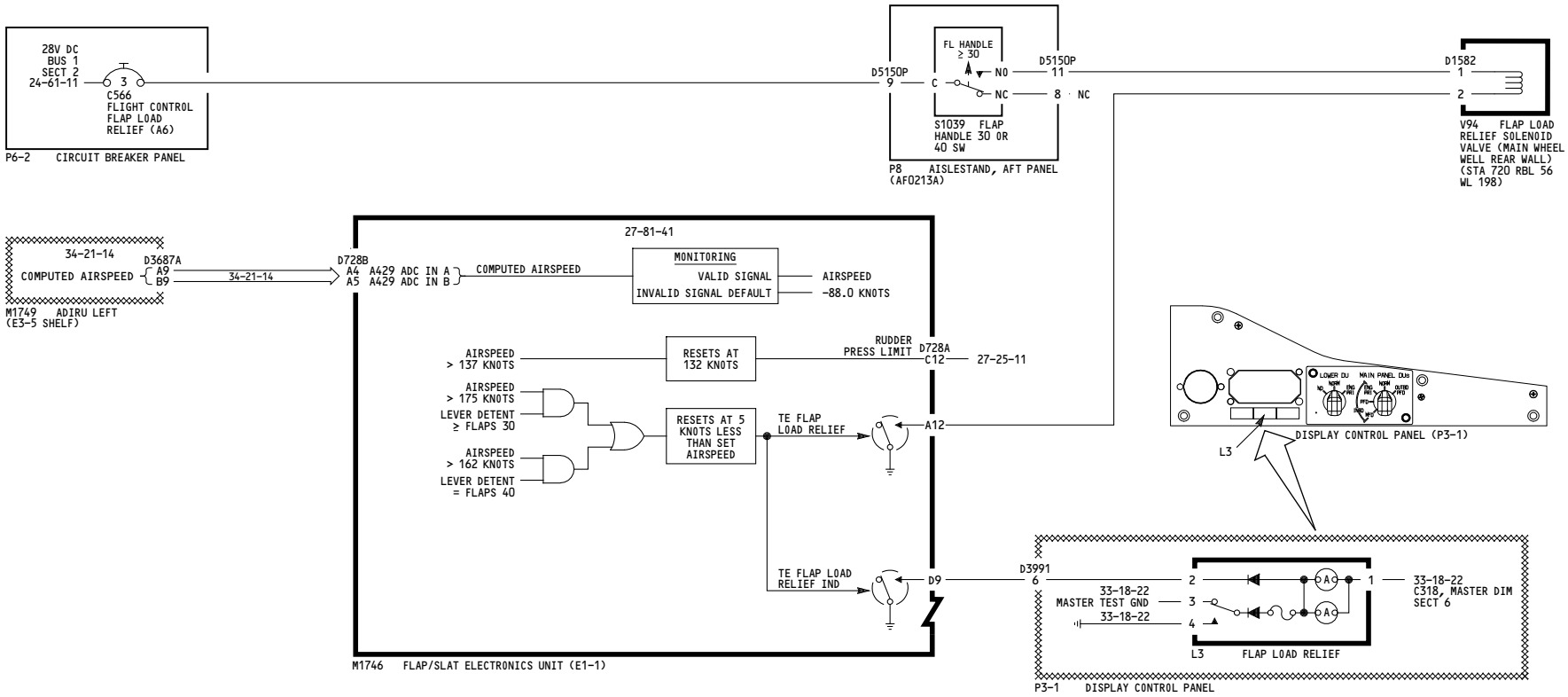

YC001-YK906, YM652-YM670	**TE FLAP LOAD RELIEF**
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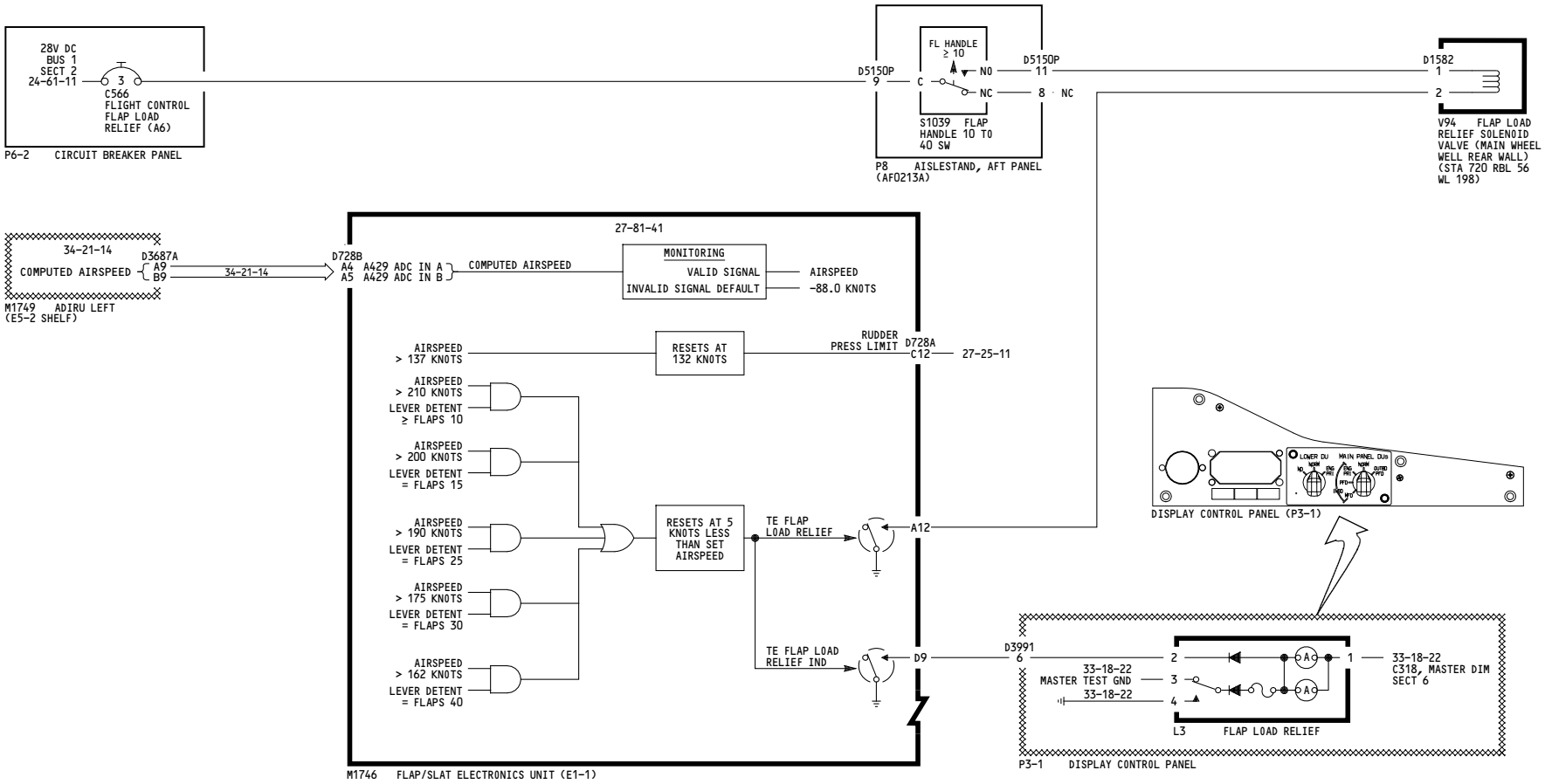

YK907-YL430

TE FLAP LOAD RELIEF

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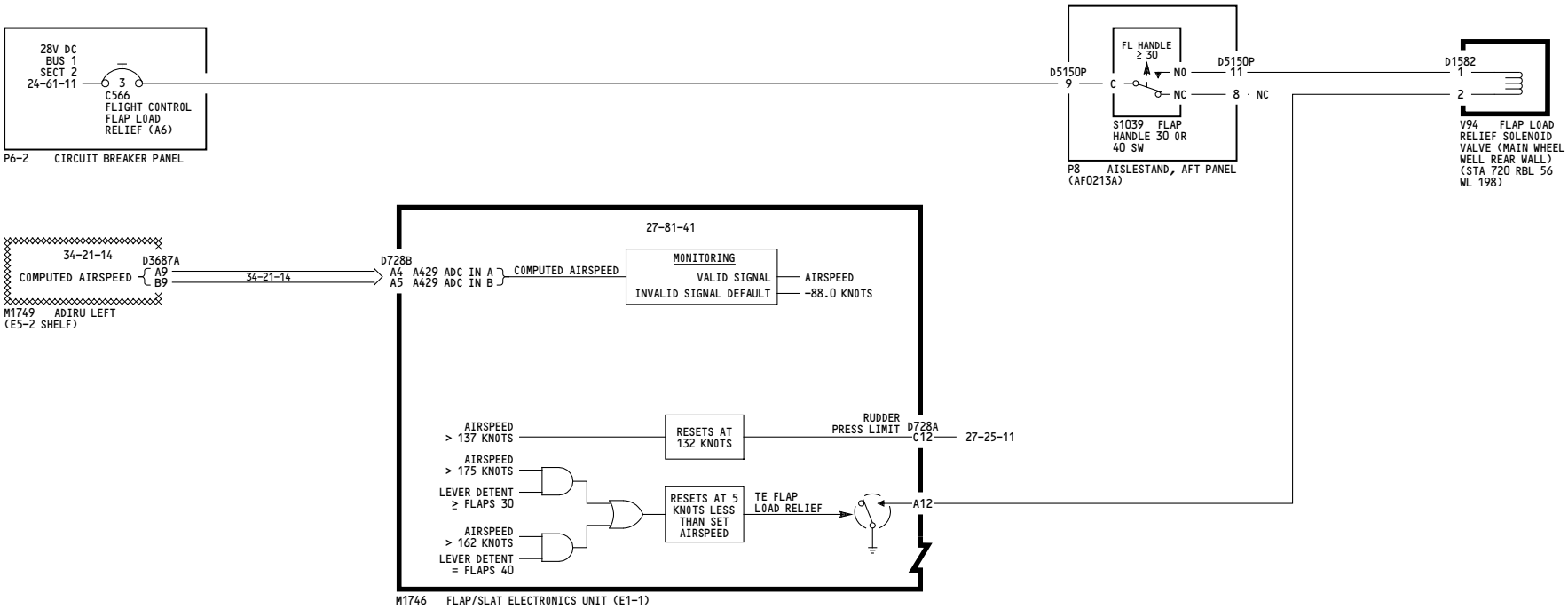

YM643-YM651

TE FLAP LOAD RELIEF

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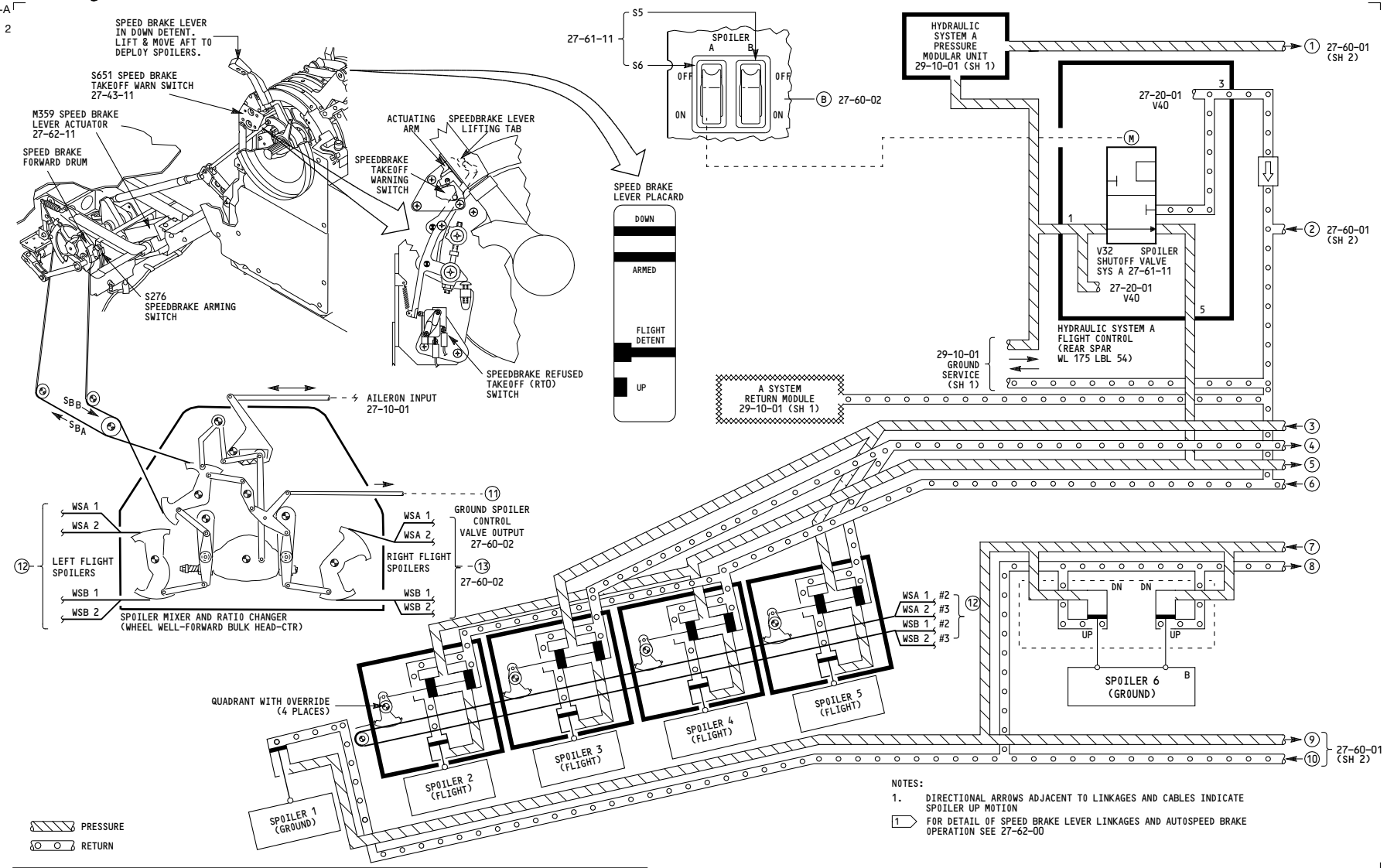

YC001-YK906

FLIGHT CONTROL AND GROUND SPOILER

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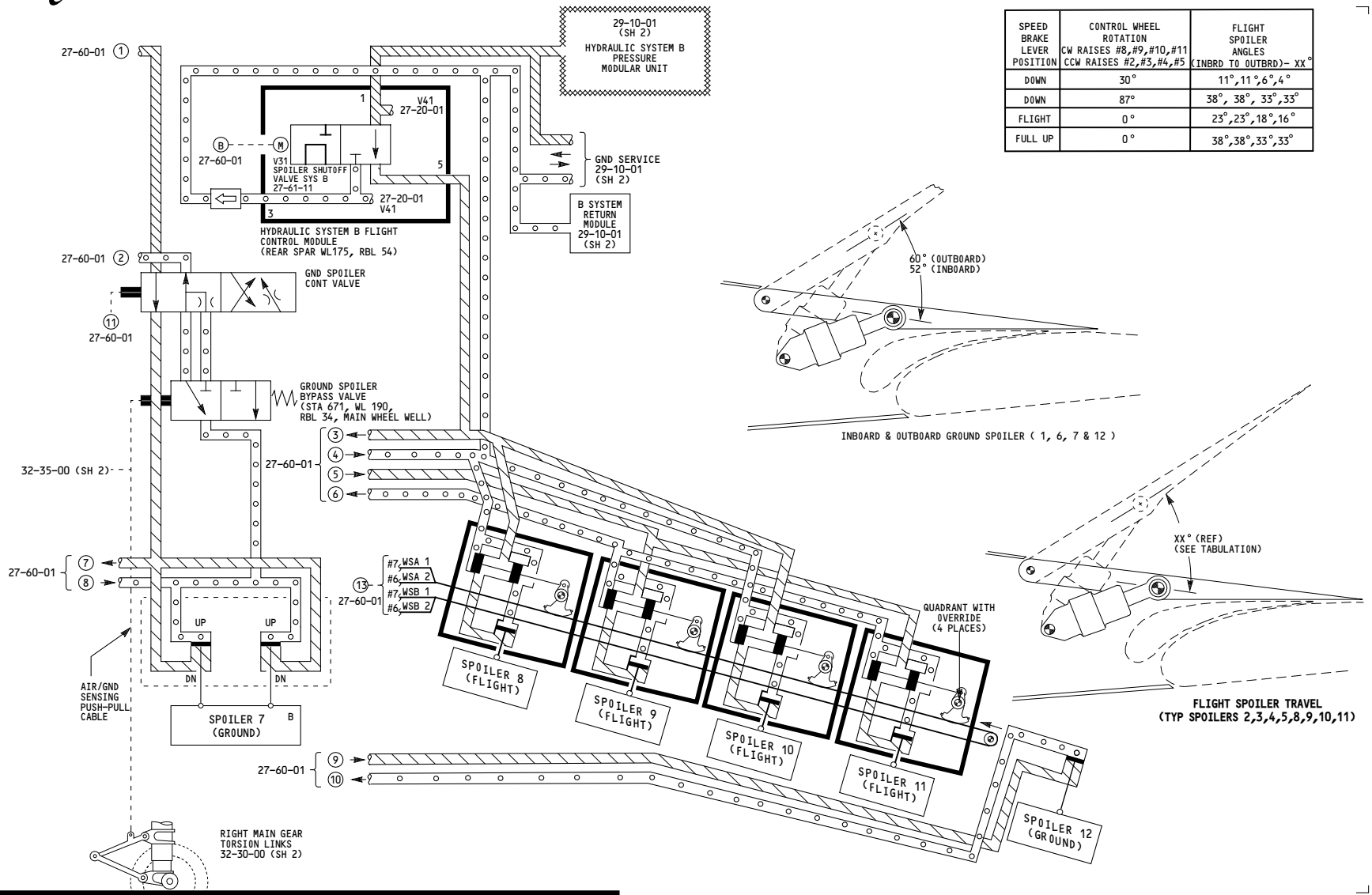
-B
2

SPEED BRAKE LEVER POSITION	CONTROL WHEEL ROTATION CW RAISES #8,#9,#10,#11 CCW RAISES #2,#3,#4,#5	FLIGHT SPOILER ANGLES (INBRD TO OUTBRD)- XX°
DOWN	30°	11°,11°,6°,4°
DOWN	87°	38°, 38°, 33°,33°
FLIGHT	0°	23°,23°,18°,16°
FULL UP	0°	38°,38°,33°,33°



YC001-YK906

FLIGHT CONTROL AND GROUND SPOILER

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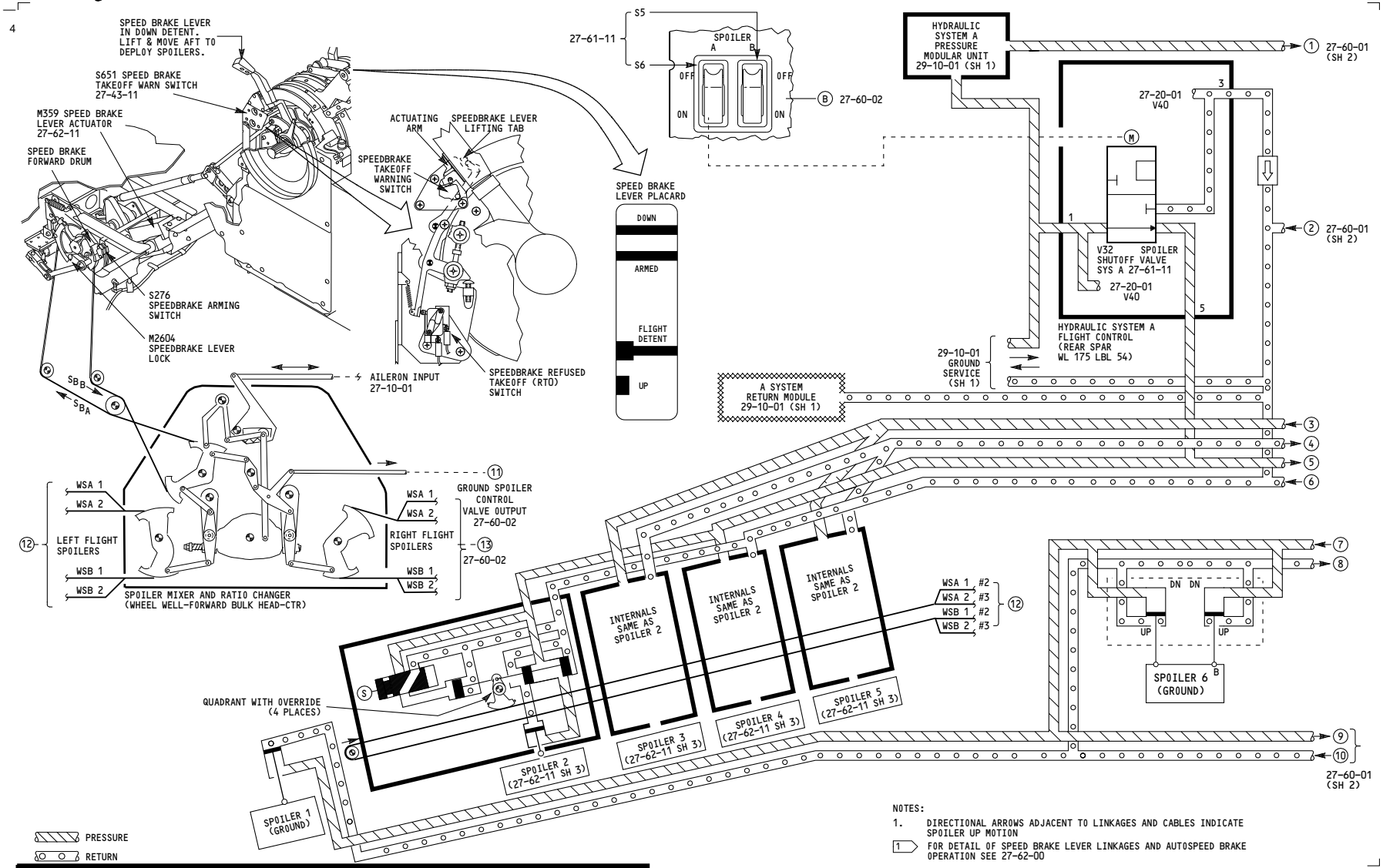

NOTES:

1. DIRECTIONAL ARROWS ADJACENT TO LINKAGES AND CABLES INDICATE SPOILER UP MOTION

1 FOR DETAIL OF SPEED BRAKE LEVER LINKAGES AND AUTOSPEED BRAKE OPERATION SEE 27-62-00

YK907-YL430

FLIGHT CONTROL AND GROUND SPOILER

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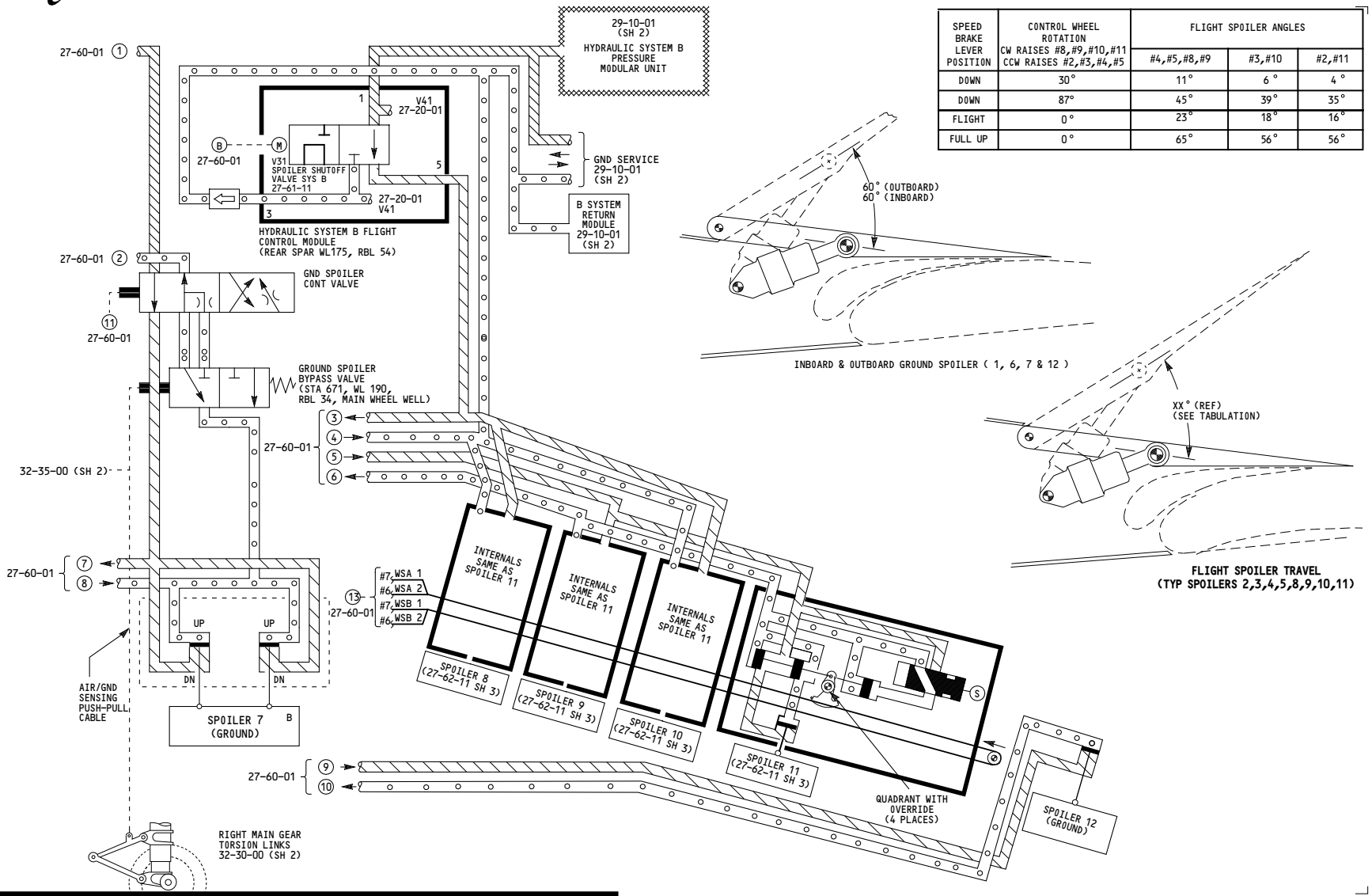
3

SPEED BRAKE LEVER POSITION	CONTROL WHEEL ROTATION CW RAISES #8,#9,#10,#11 CCW RAISES #2,#3,#4,#5	FLIGHT SPOILER ANGLES		
		#4,#5,#8,#9	#3,#10	#2,#11
DOWN	30°	11°	6 °	4 °
DOWN	87°	45°	39°	35°
FLIGHT	0 °	23°	18°	16°
FULL UP	0 °	65°	56°	56°



YK907-YL430

FLIGHT CONTROL AND GROUND SPOILER

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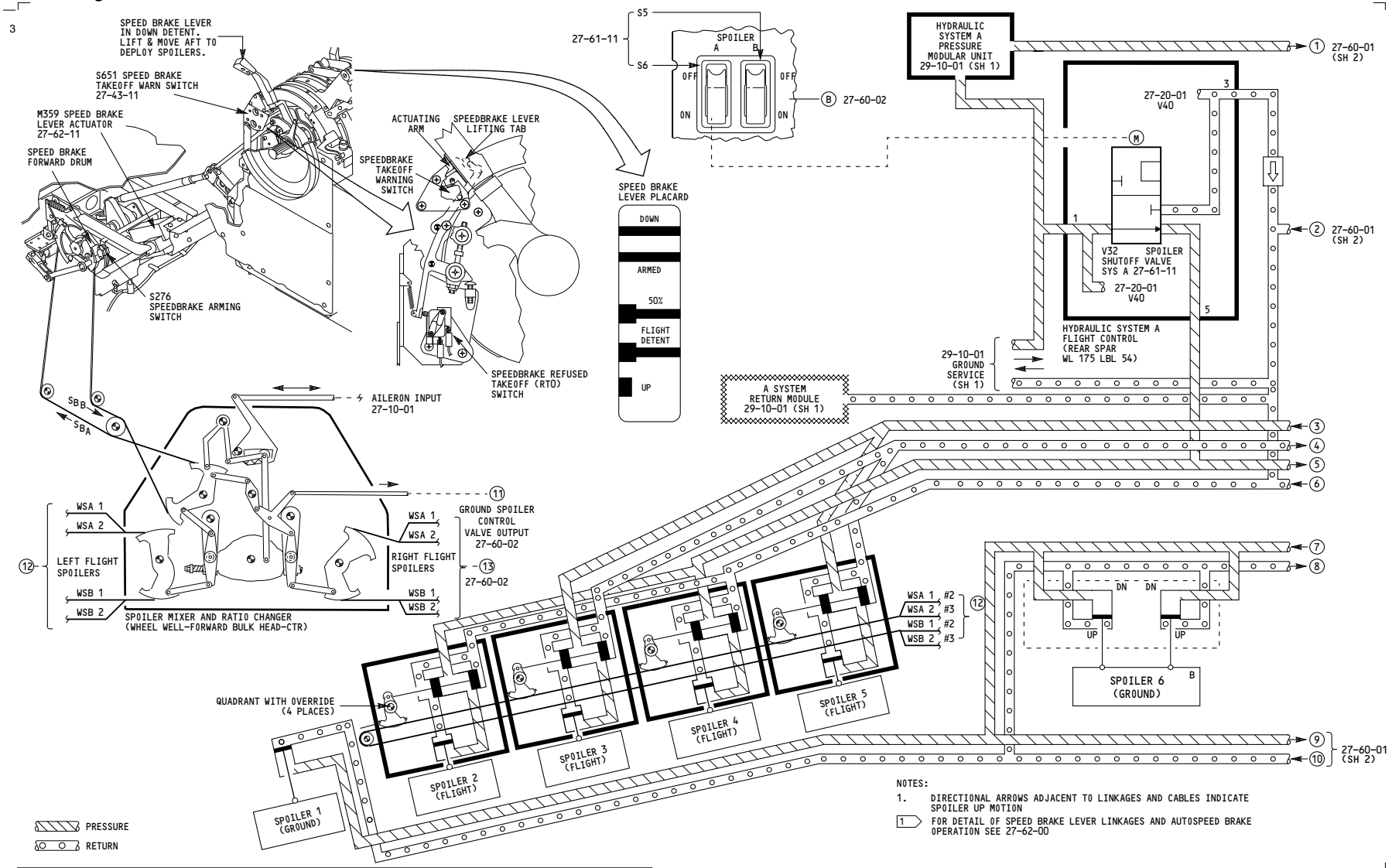

YM643-YM670

FLIGHT CONTROL AND GROUND SPOILER

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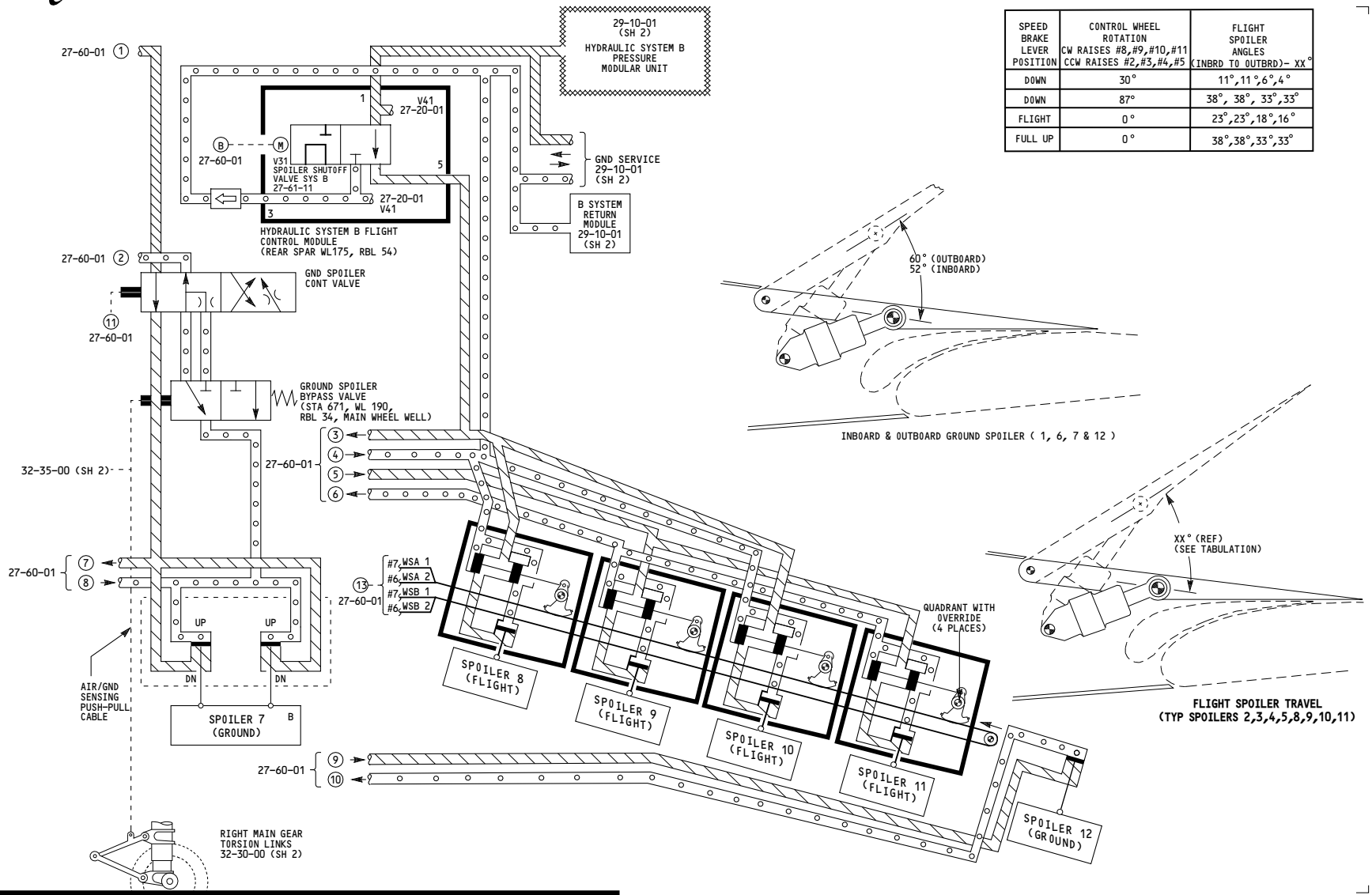
SPEED BRAKE LEVER POSITION	CONTROL WHEEL ROTATION CW RAISES #8,#9,#10,#11 CCW RAISES #2,#3,#4,#5	FLIGHT SPOILER ANGLES (INBRD TO OUTBRD)- XX°
DOWN	30°	11°,11°,6°,4°
DOWN	87°	38°, 38°, 33°,33°
FLIGHT	0°	23°,23°,18°,16°
FULL UP	0°	38°,38°,33°,33°



YM643-YM670

FLIGHT CONTROL AND GROUND SPOILER

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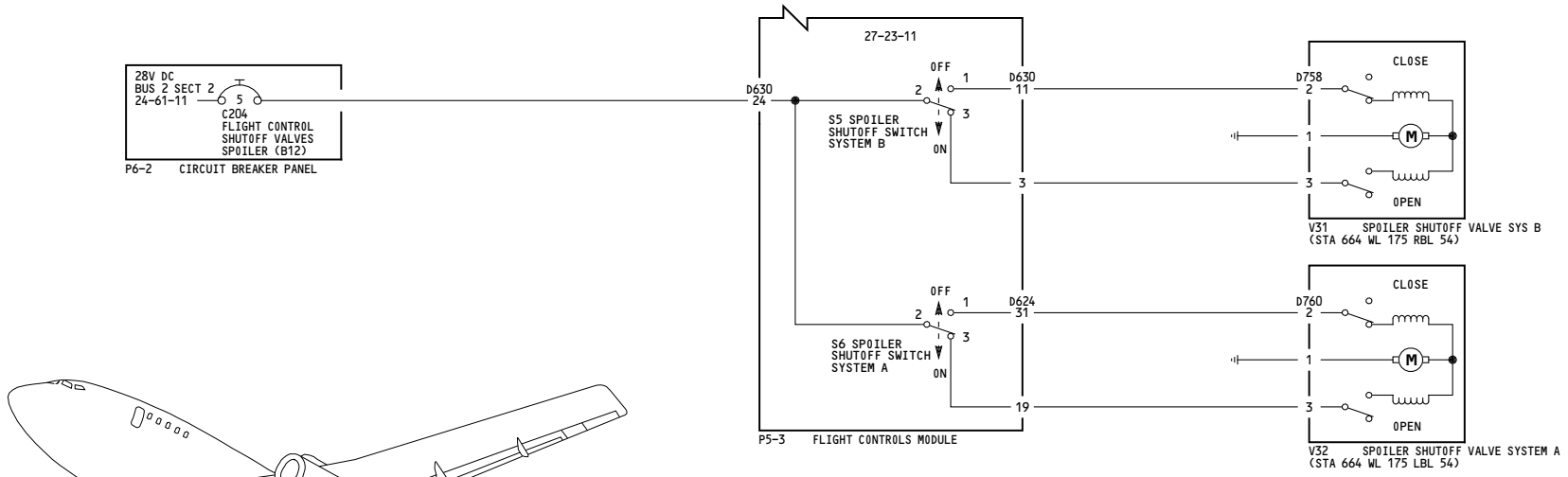

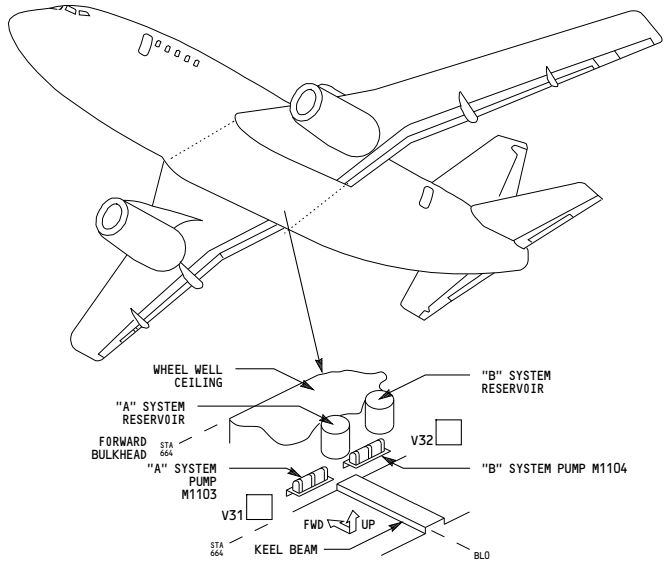

ALL	SPOILER SHUTOFF VALVES
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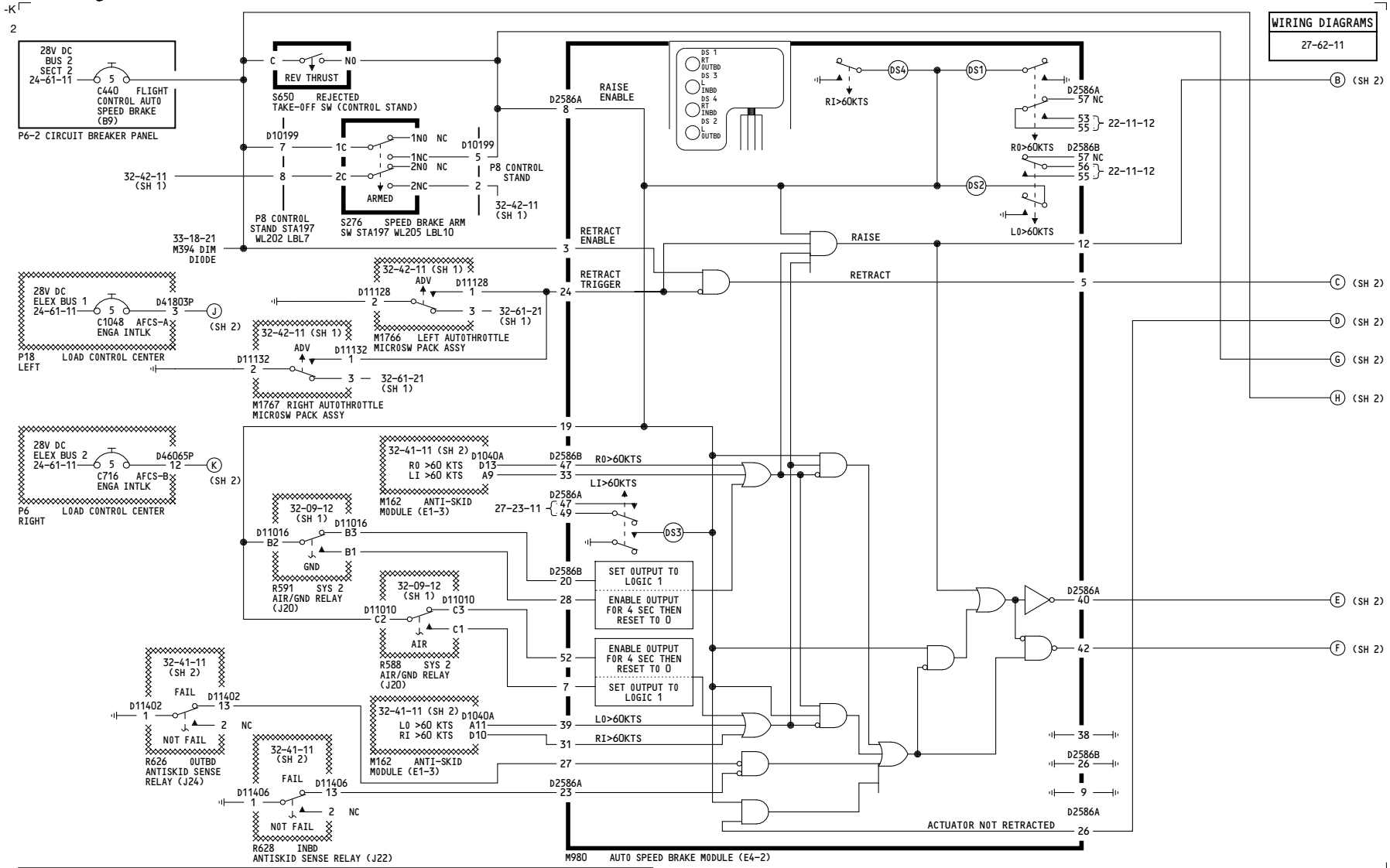

YC001-YC010, YC012-YC030

AUTOMATIC GROUND SPEEDBRAKE CONTROL

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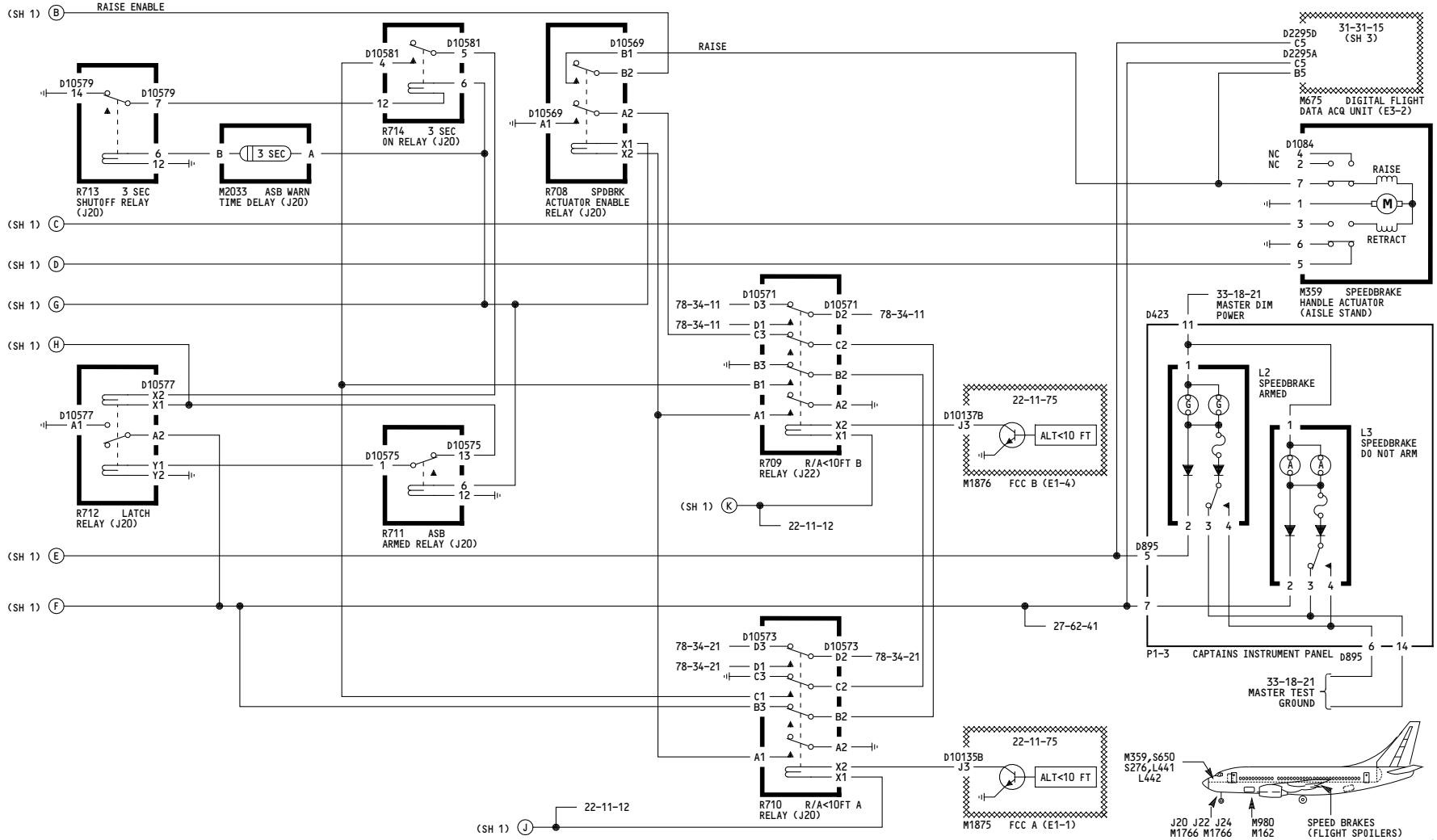

YC001-YC010, YC012-YC030

AUTOMATIC GROUND SPEEDBRAKE CONTROL

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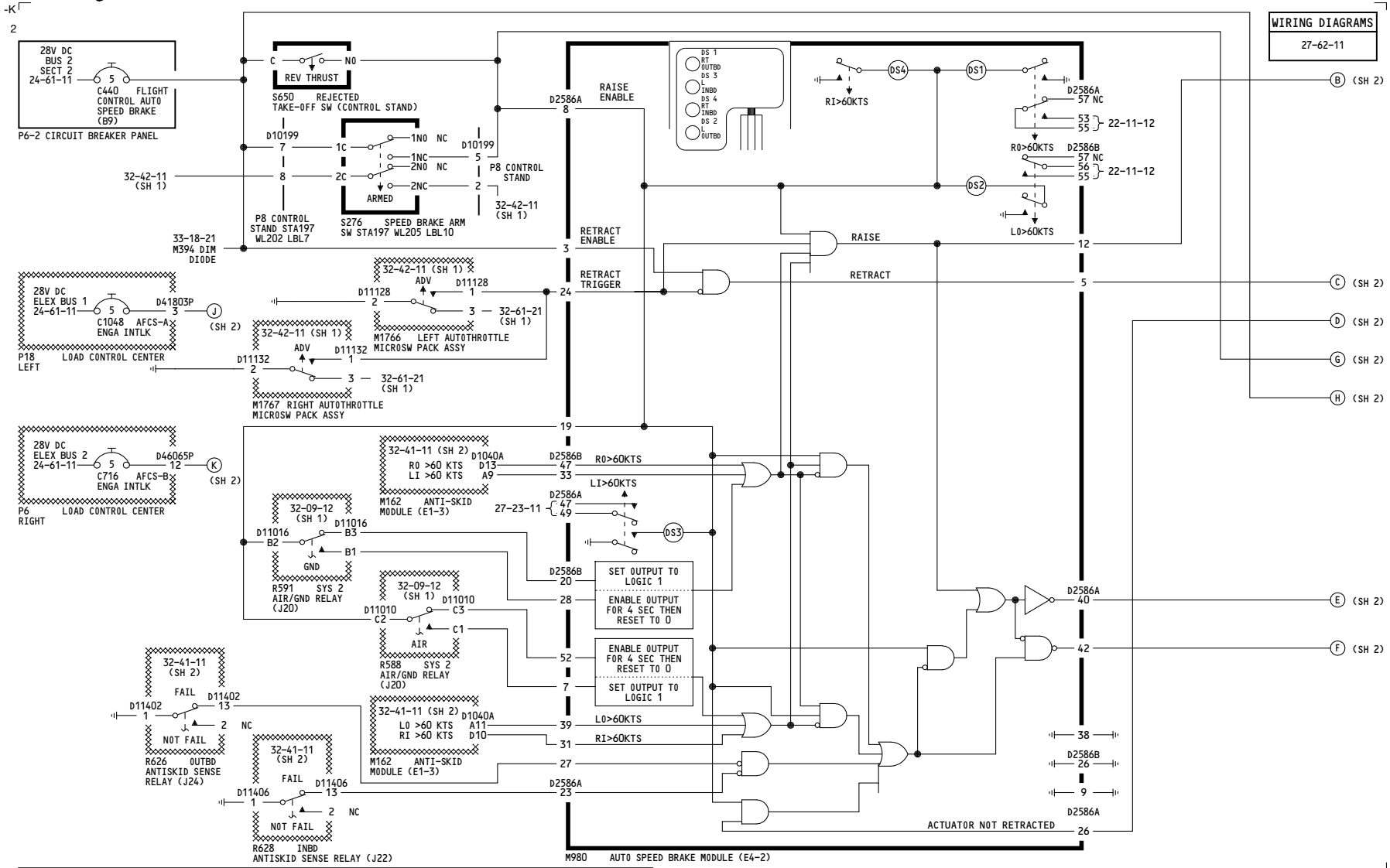

YC001-YC010, YC012-YC030

AUTOMATIC GROUND SPEEDBRAKE CONTROL

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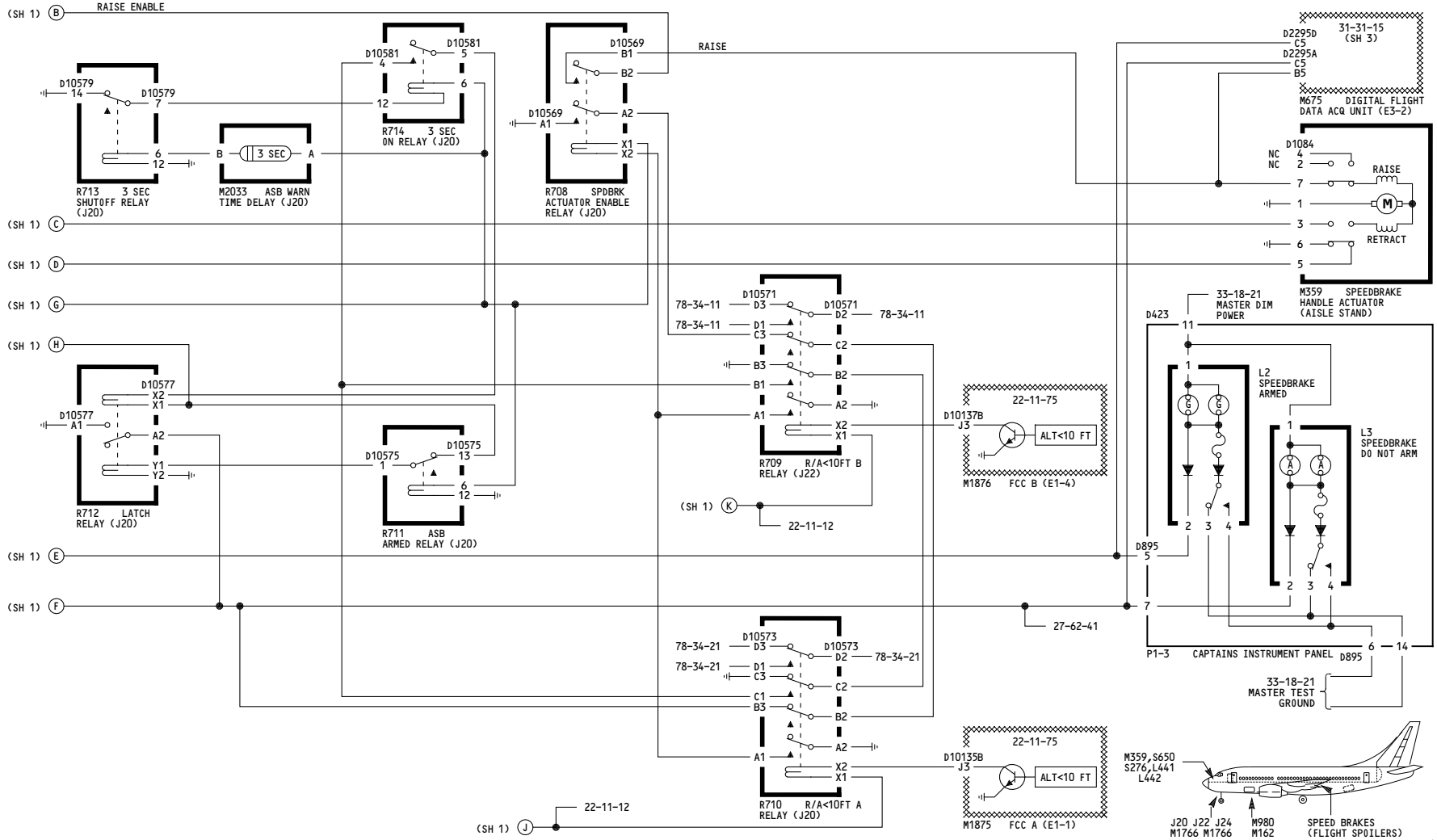

YC001-YC010, YC012-YC030

AUTOMATIC GROUND SPEEDBRAKE CONTROL

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PD 0802664

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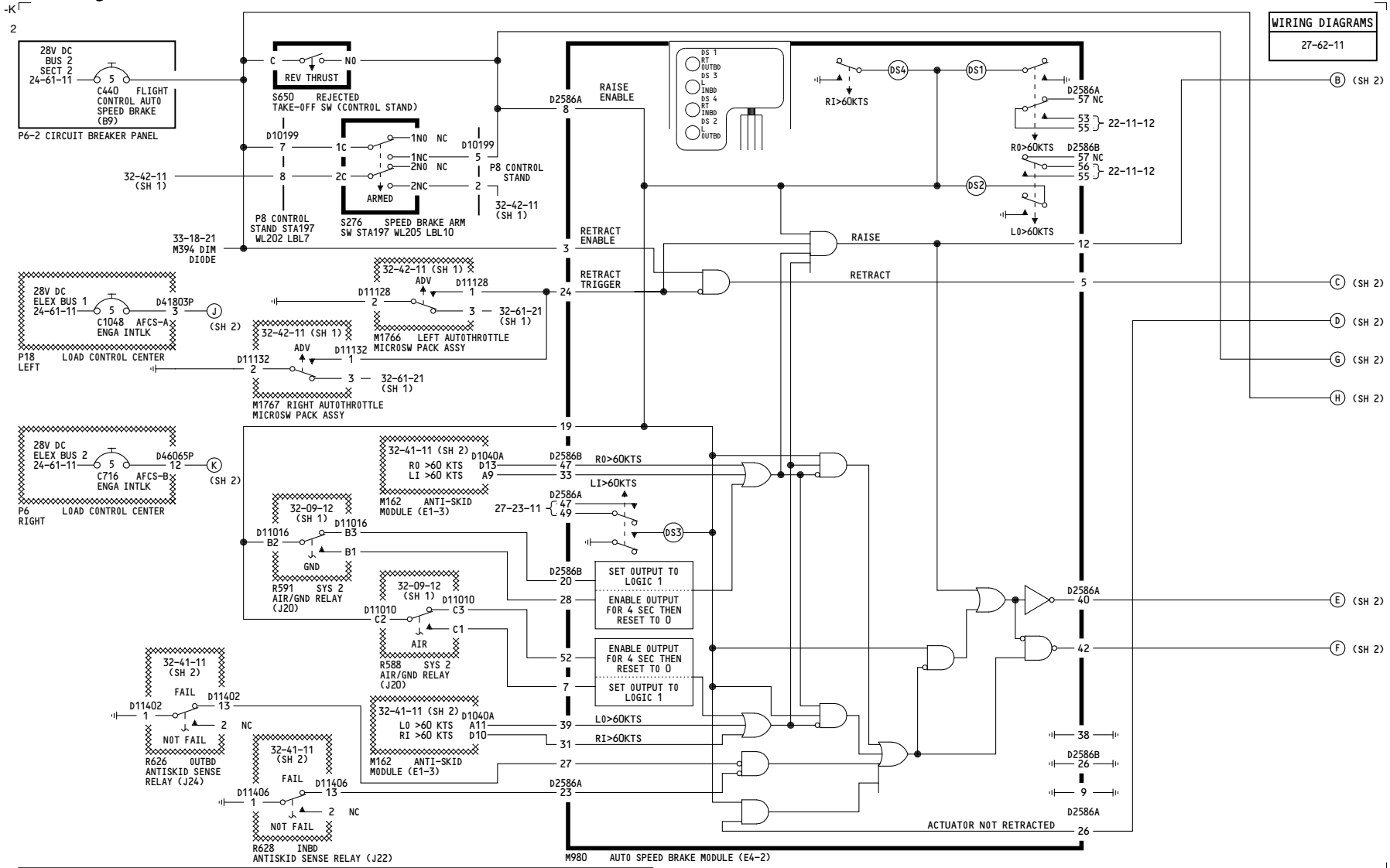

YC011, YC031-YK906	**AUTOMATIC GROUND SPEEDBRAKE CONTROL**	**27-62-11**
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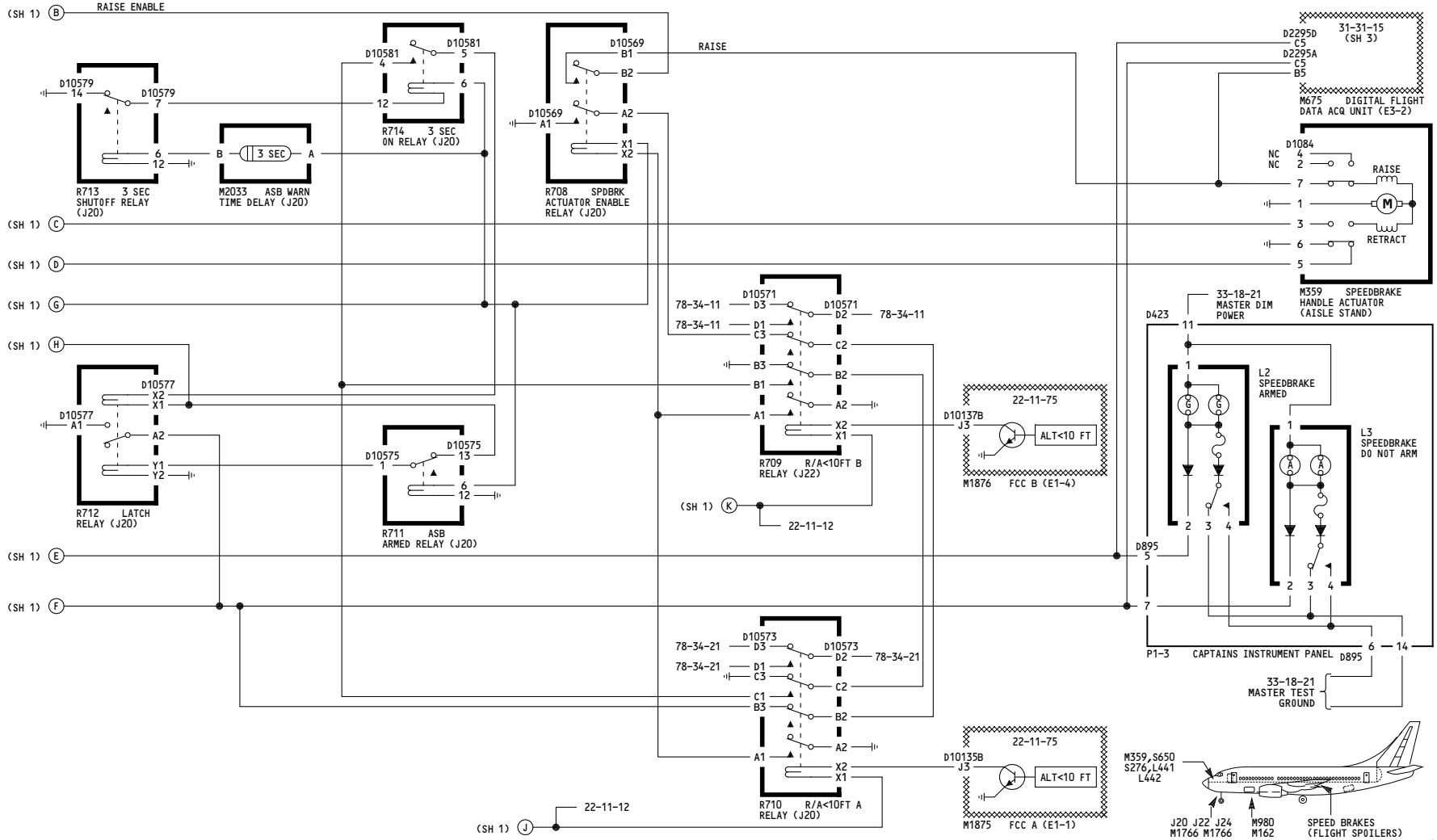

YC011, YC031-YK906

AUTOMATIC GROUND SPEEDBRAKE CONTROL

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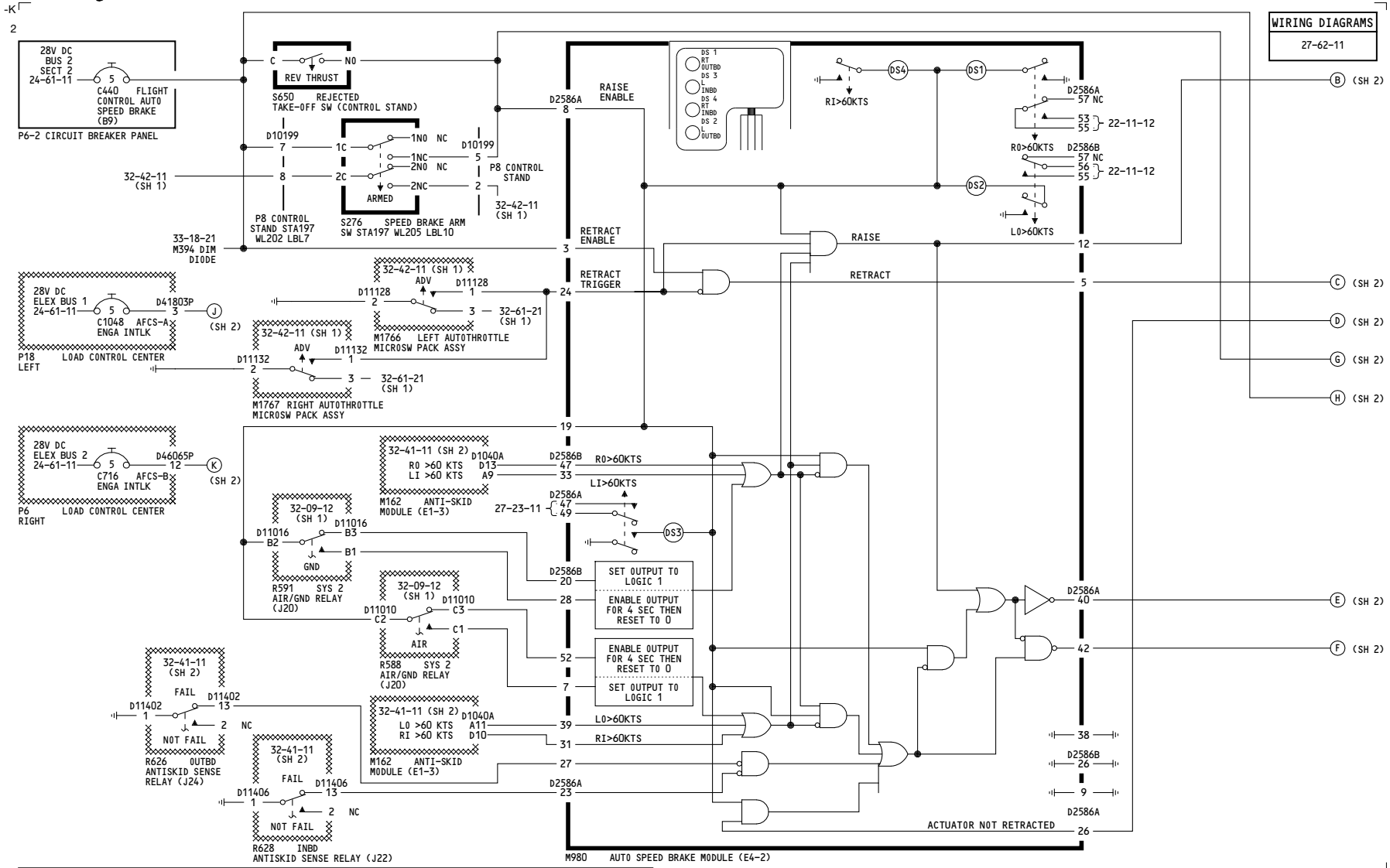

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AUTOMATIC GROUND SPEEDBRAKE CONTROL

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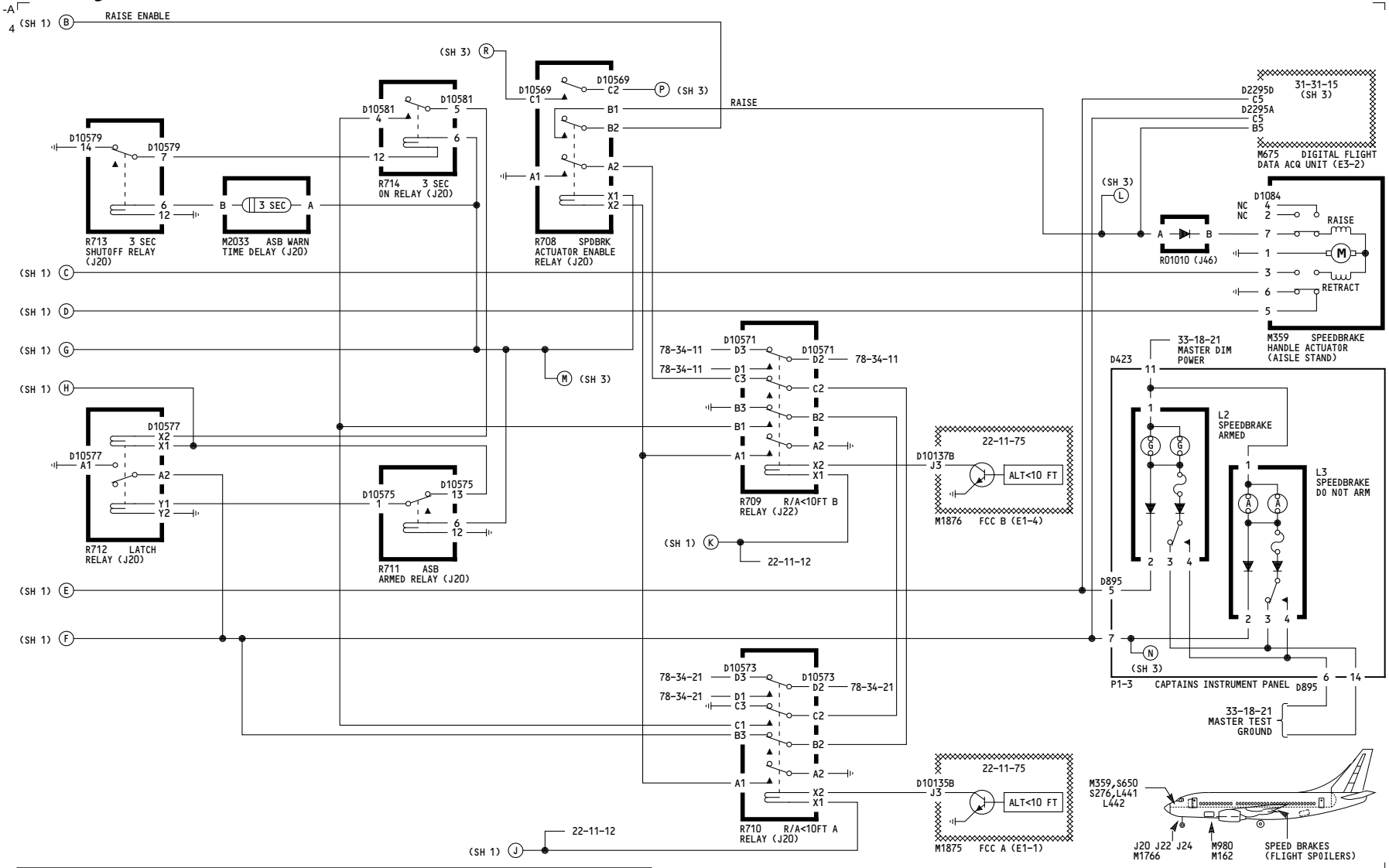

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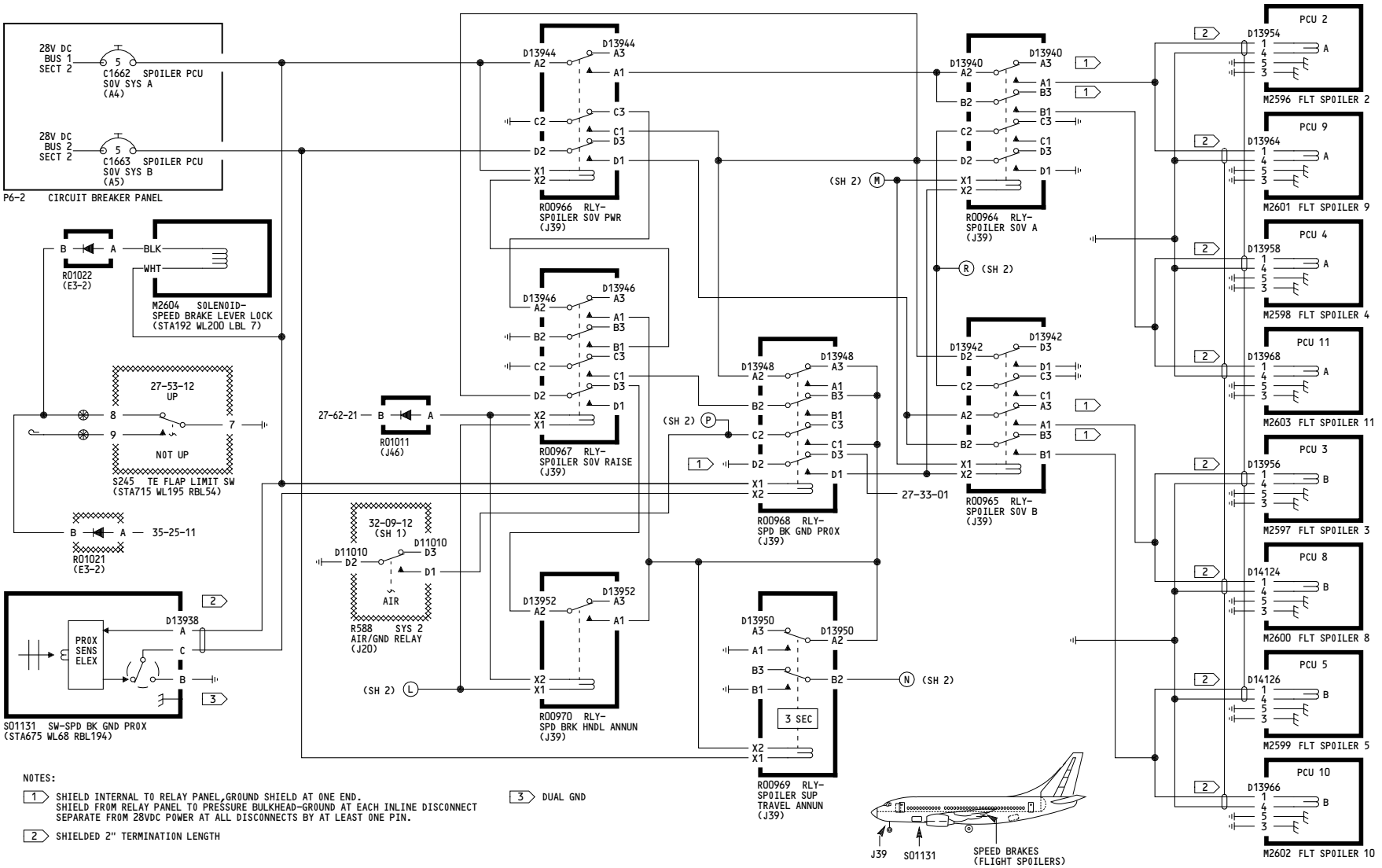

NOTES:

1. SHIELD INTERNAL TO RELAY PANEL, GROUND SHIELD AT ONE END. SHIELD FROM RELAY PANEL TO PRESSURE BULKHEAD-GROUND AT EACH INLINE DISCONNECT SEPARATE FROM 28VDC POWER AT ALL DISCONNECTS BY AT LEAST ONE PIN.
2. SHIELDED 2" TERMINATION LENGTH
3. DUAL GND

YK907

AUTOMATIC GROUND SPEEDBRAKE CONTROL

D280A203

Incorporates
27-1285

27-62-11

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Sheet 3
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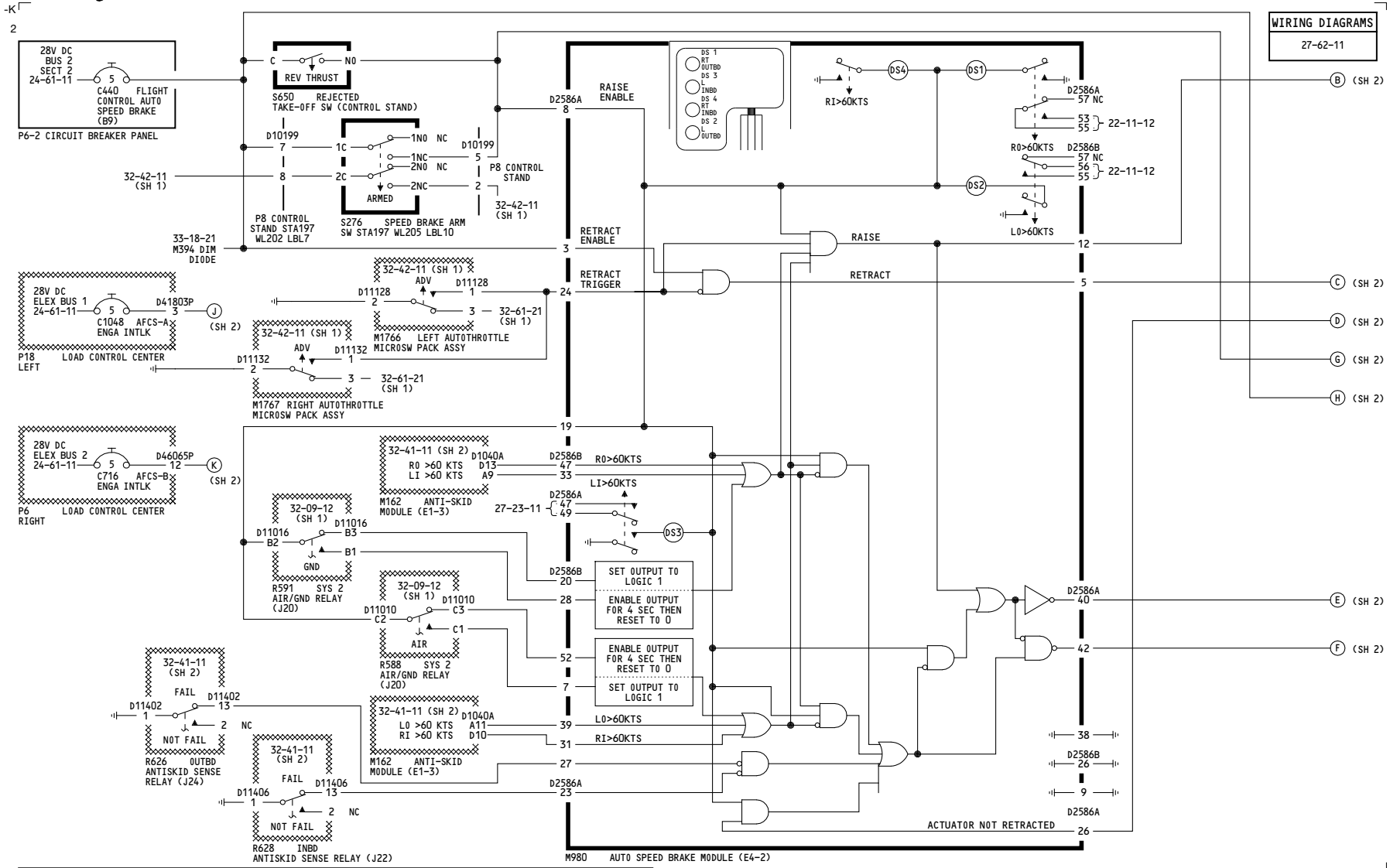

YK908-YL401, YL422-YL430

AUTOMATIC GROUND SPEEDBRAKE CONTROL

D280A203

27-62-11

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Sheet 1
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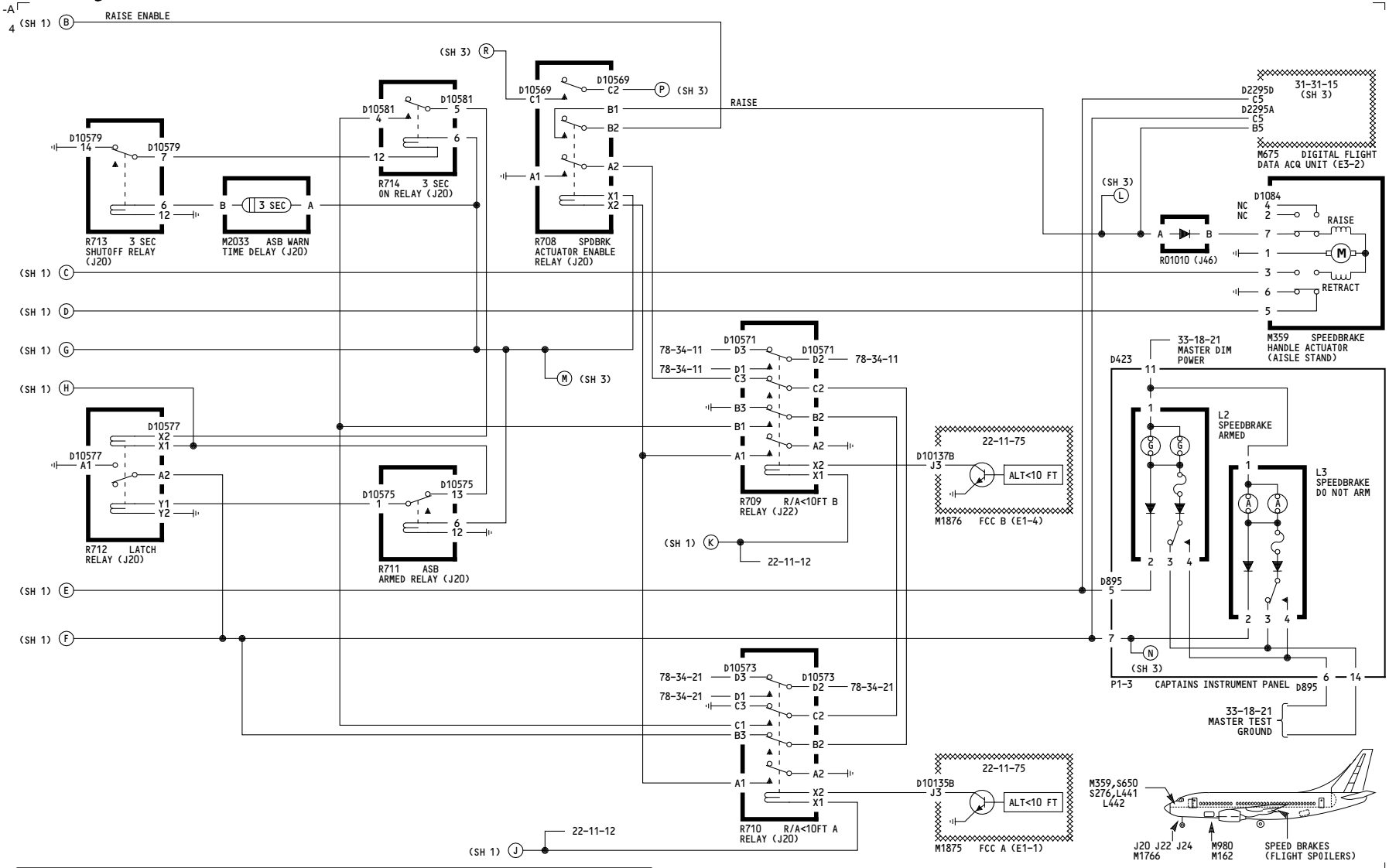

YK908-YL401, YL422-YL430

AUTOMATIC GROUND SPEEDBRAKE CONTROL

D280A203

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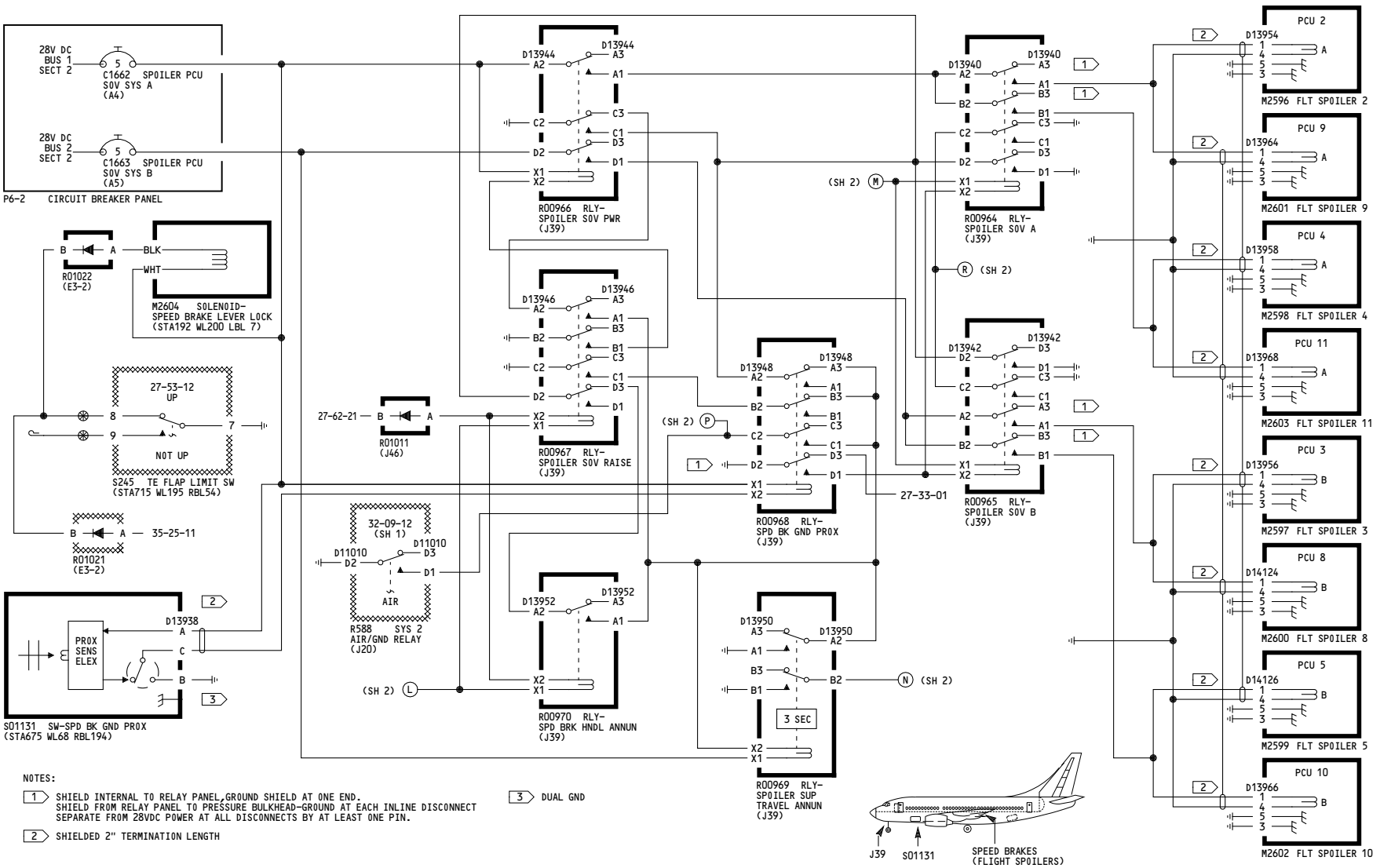

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1. SHIELD INTERNAL TO RELAY PANEL, GROUND SHIELD AT ONE END. SHIELD FROM RELAY PANEL TO PRESSURE BULKHEAD-GROUND AT EACH INLINE DISCONNECT SEPARATE FROM 28VDC POWER AT ALL DISCONNECTS BY AT LEAST ONE PIN.
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YK908-YL401, YL422-YL430

AUTOMATIC GROUND SPEEDBRAKE CONTROL

D280A203

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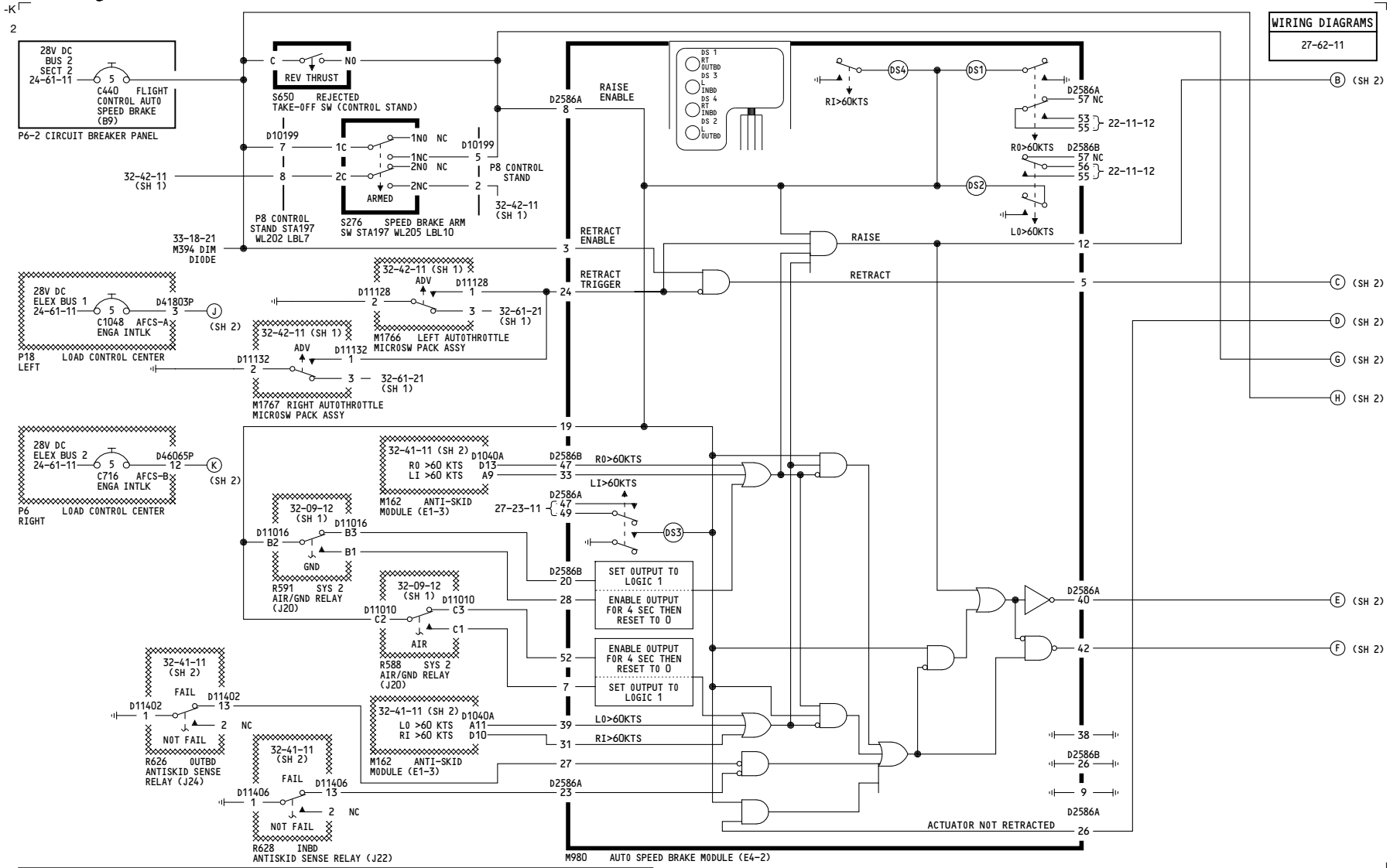

YL421

AUTOMATIC GROUND SPEEDBRAKE CONTROL

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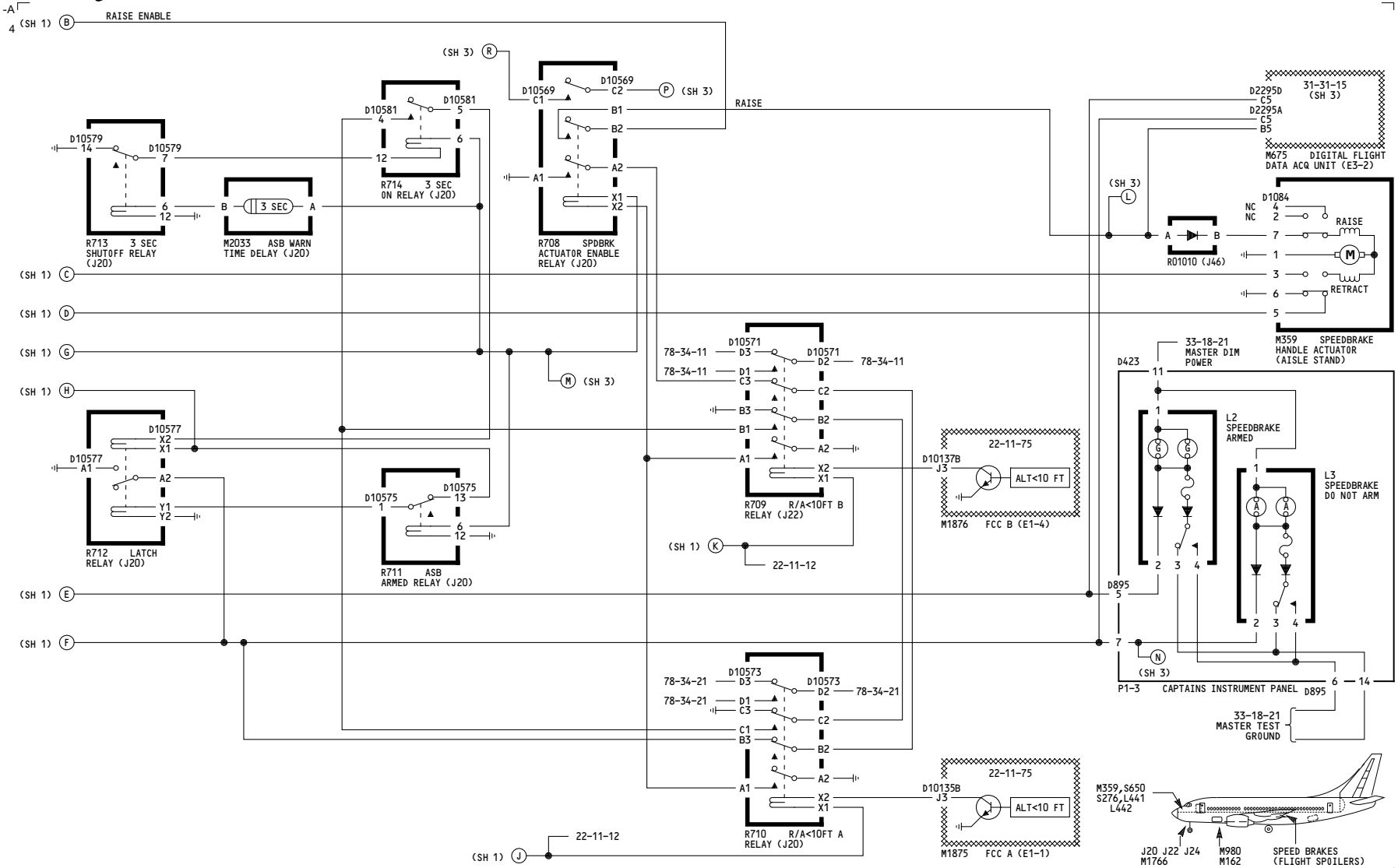

YL421

AUTOMATIC GROUND SPEEDBRAKE CONTROL

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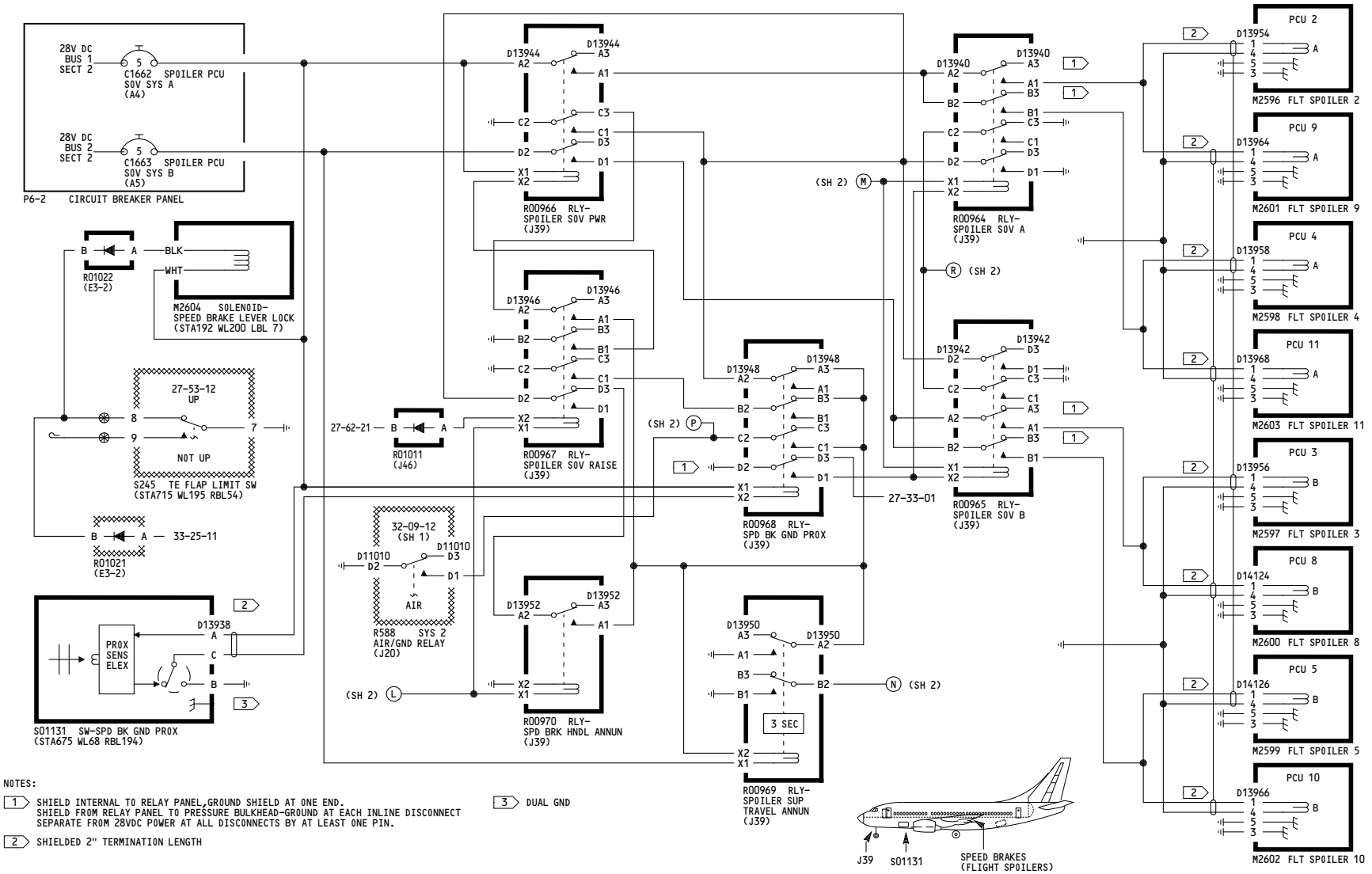

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2. SHIELDED 2" TERMINATION LENGTH
3. DUAL GND

YL421

AUTOMATIC GROUND SPEEDBRAKE CONTROL

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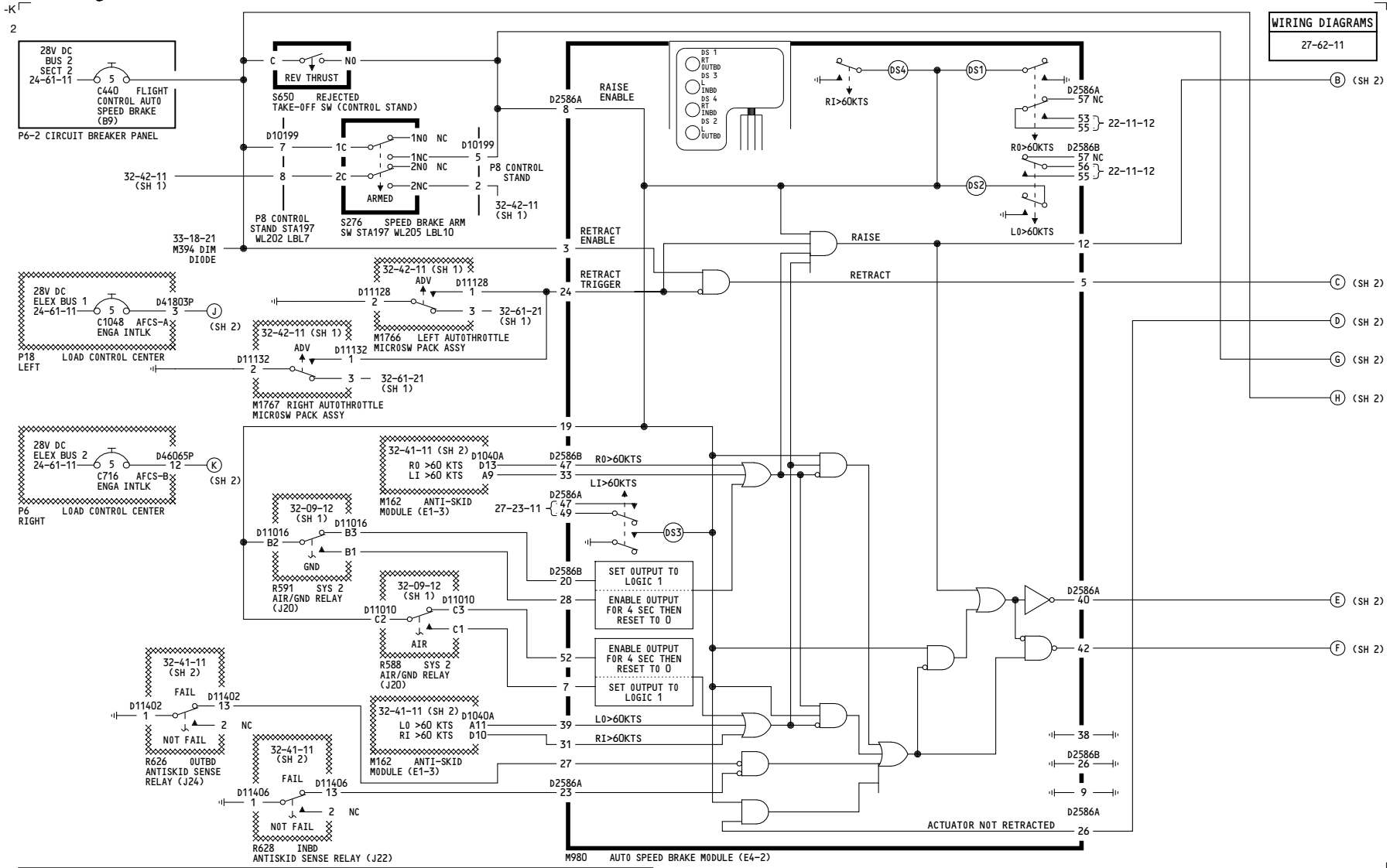

YM643-YM670

AUTOMATIC GROUND SPEEDBRAKE CONTROL

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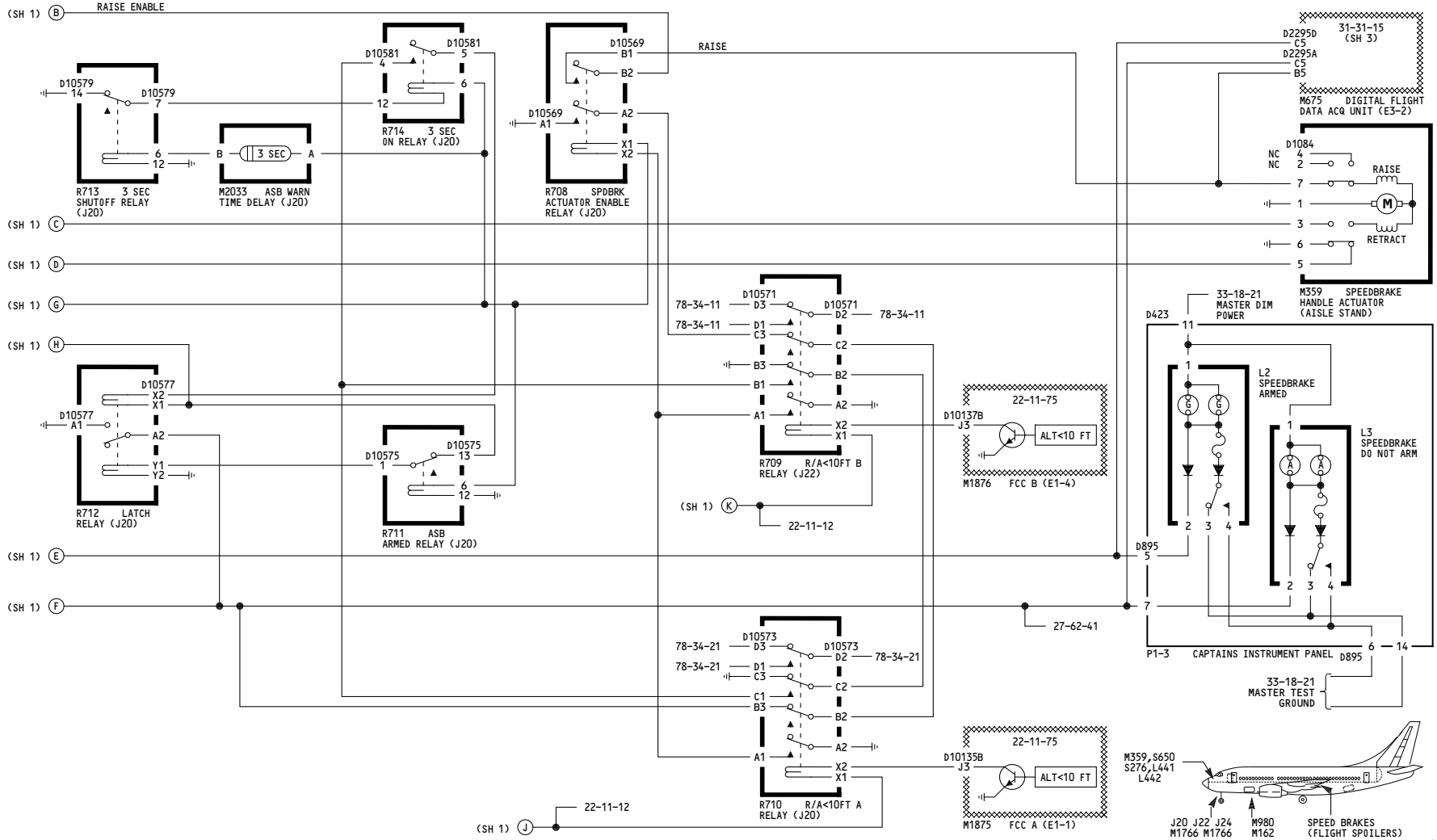

YM643-YM670

AUTOMATIC GROUND SPEEDBRAKE CONTROL

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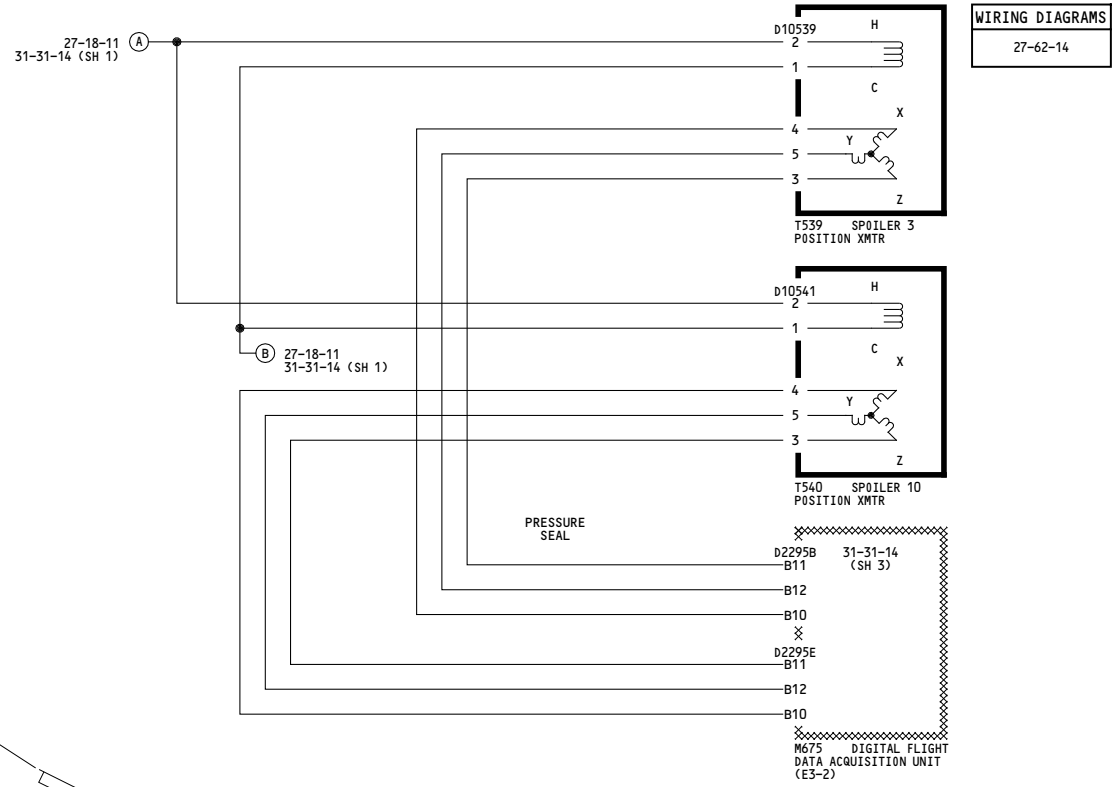

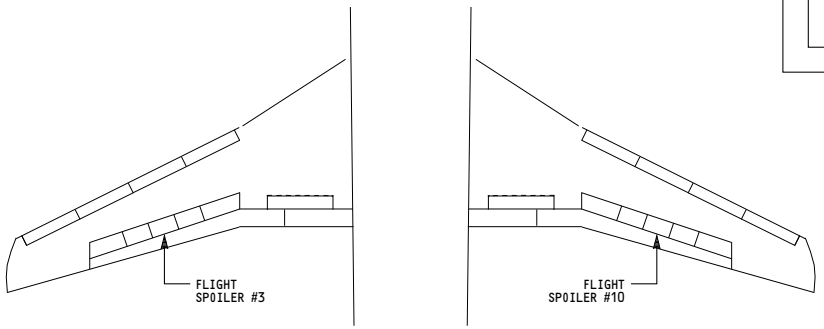

ALL	**SPOILER POSITION INDICATION**
	D280A203

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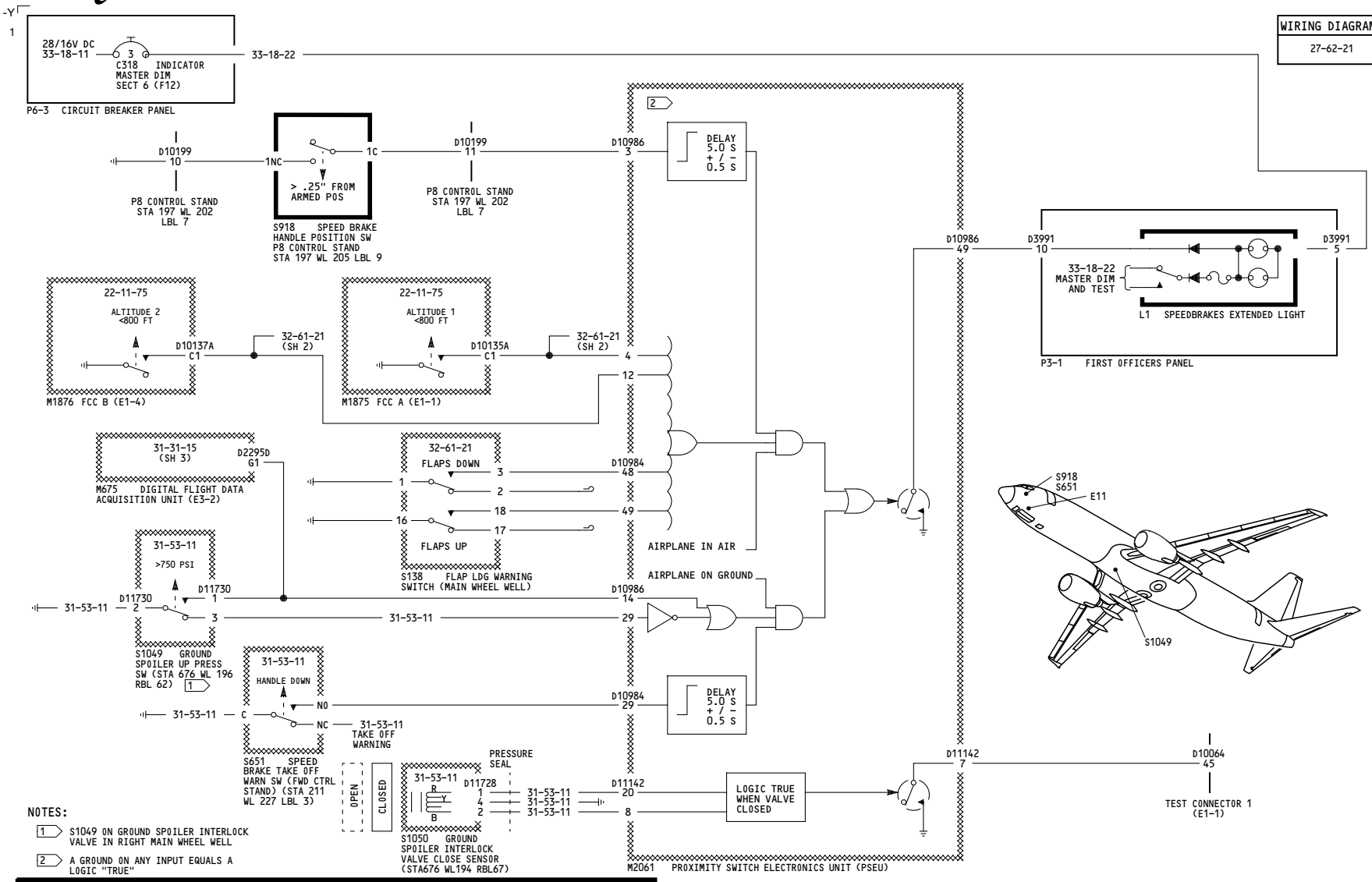
WIRING DIAGRAMS
27-62-21



NOTES:

1 S1049 ON GROUND SPOILER INTERLOCK VALVE IN RIGHT MAIN WHEEL WELL

2 A GROUND ON ANY INPUT EQUALS A LOGIC "TRUE"

YC001-YC030, YK901-YK906

SPEEDBRAKE DEPLOYED INDICATION

D280A203

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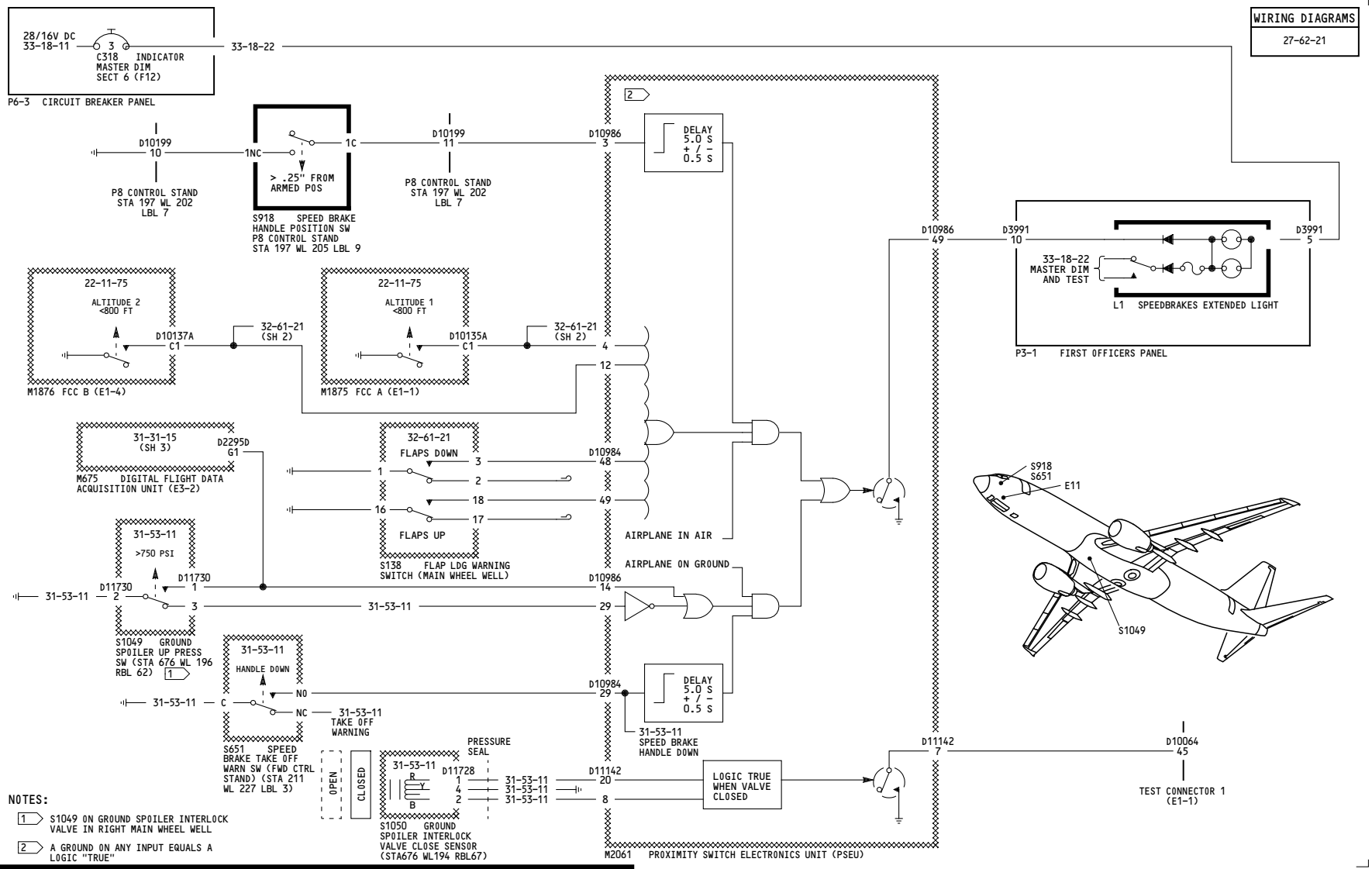
WIRING DIAGRAMS
27-62-21



NOTES:

1. S1049 ON GROUND SPOILER INTERLOCK VALVE IN RIGHT MAIN WHEEL WELL
2. A GROUND ON ANY INPUT EQUALS A LOGIC "TRUE"

YC031-YC050, YM643-YM651

SPEEDBRAKE DEPLOYED INDICATION

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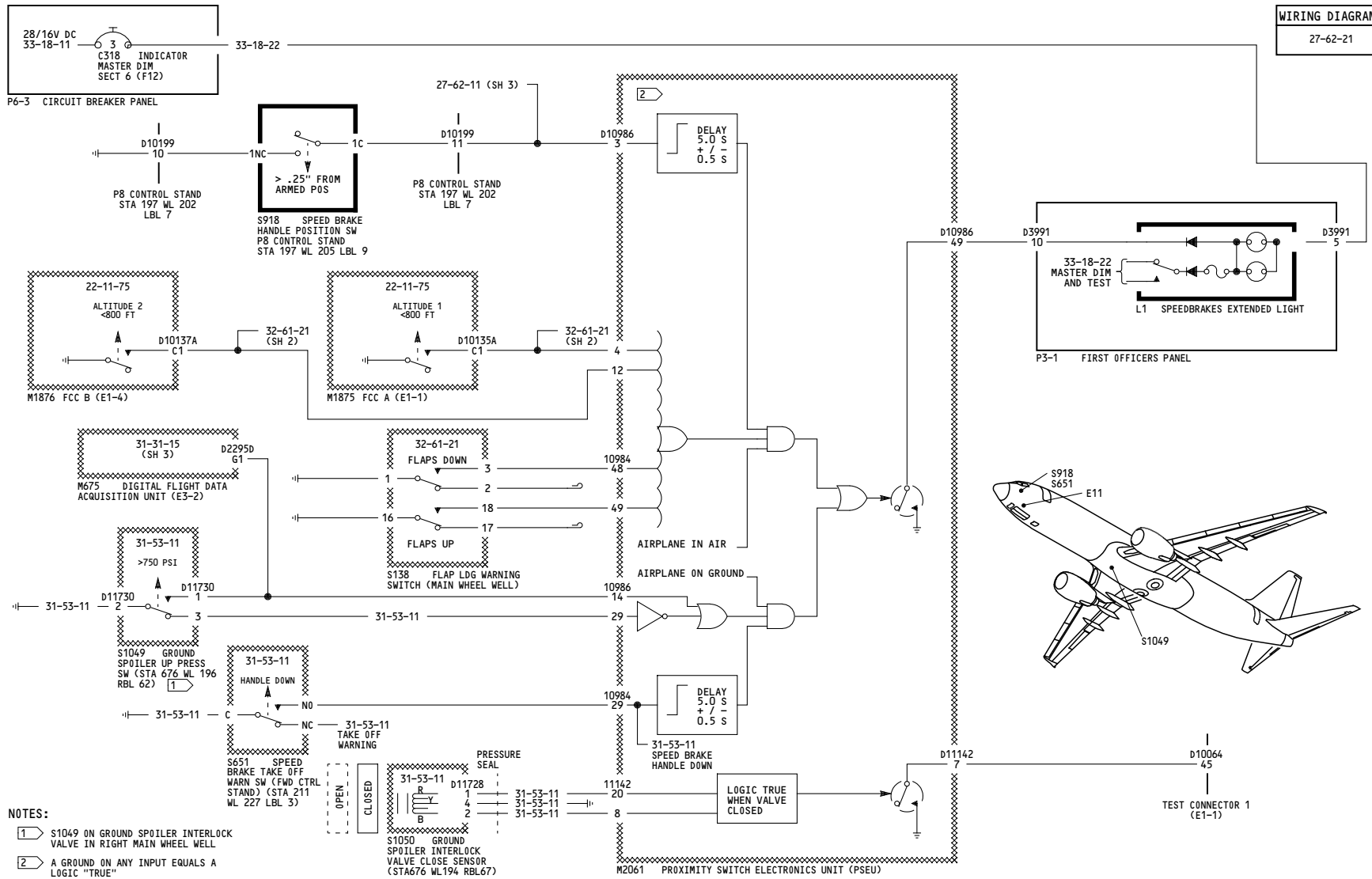
WIRING DIAGRAMS
27-62-21



NOTES:

1 S1049 ON GROUND SPOILER INTERLOCK VALVE IN RIGHT MAIN WHEEL WELL

2 A GROUND ON ANY INPUT EQUALS A LOGIC "TRUE"

YK907-YK910, YK918

SPEEDBRAKE DEPLOYED INDICATION

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WIRING DIAGRAMS
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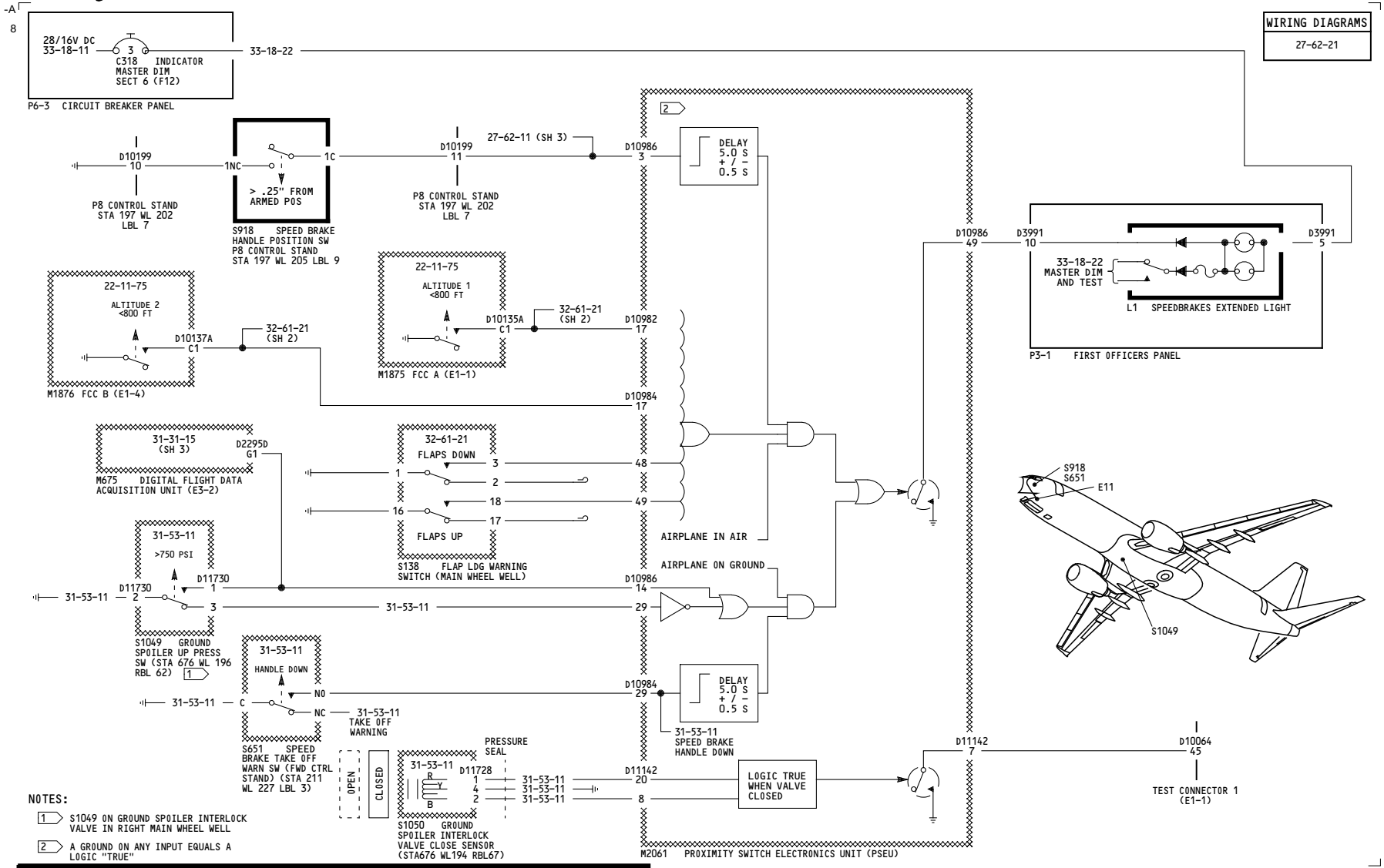

NOTES:

1. S1049 ON GROUND SPOILER INTERLOCK VALVE IN RIGHT MAIN WHEEL WELL
2. A GROUND ON ANY INPUT EQUALS A LOGIC "TRUE"

YK911-YK917, YK919-YL401

SPEEDBRAKE DEPLOYED INDICATION

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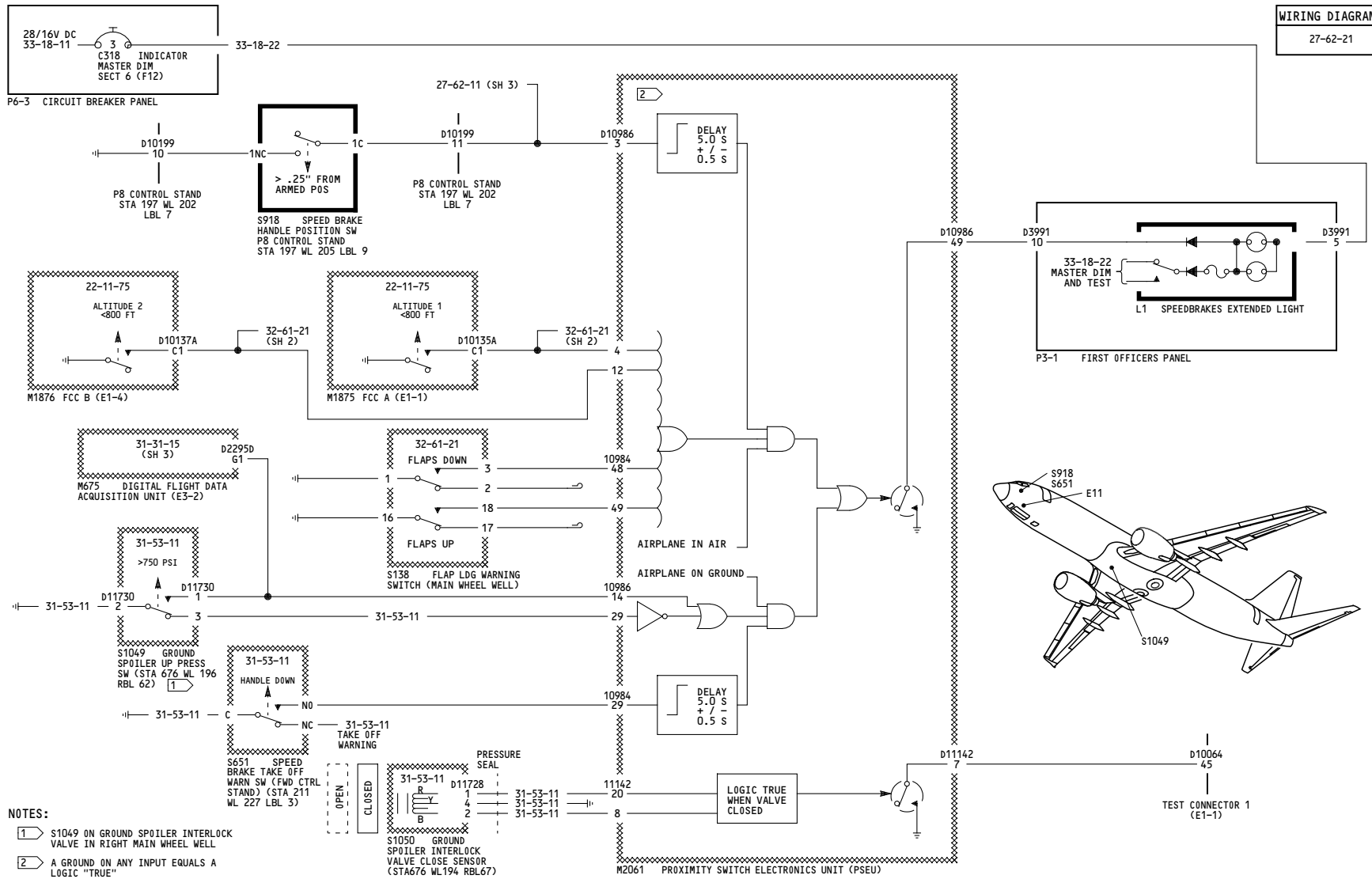

NOTES:

1 S1049 ON GROUND SPOILER INTERLOCK VALVE IN RIGHT MAIN WHEEL WELL

2 A GROUND ON ANY INPUT EQUALS A LOGIC "TRUE"

YL421-YL430

SPEEDBRAKE DEPLOYED INDICATION

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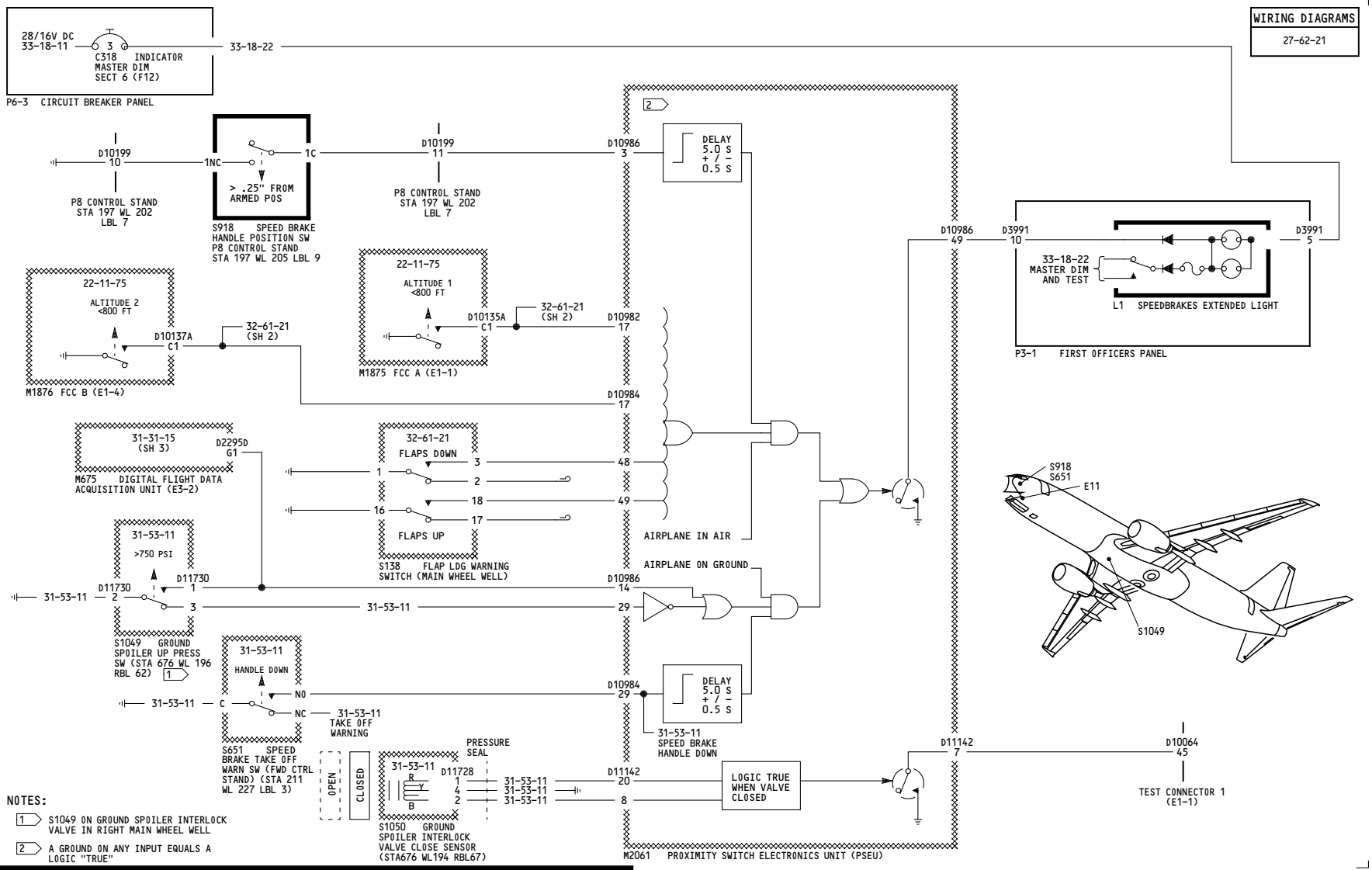
WIRING DIAGRAMS
27-62-21



NOTES:

1 S1049 ON GROUND SPOILER INTERLOCK VALVE IN RIGHT MAIN WHEEL WELL

2 A GROUND ON ANY INPUT EQUALS A LOGIC "TRUE"

YM652-YM670

SPEEDBRAKE DEPLOYED INDICATION

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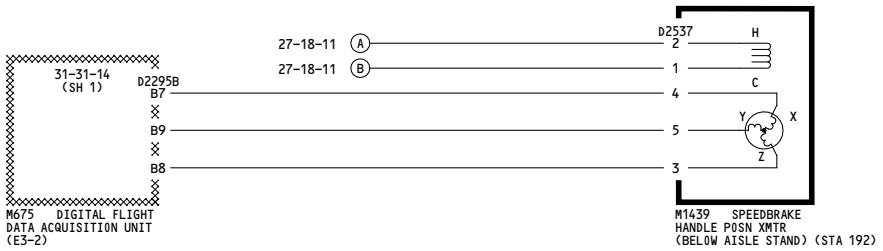

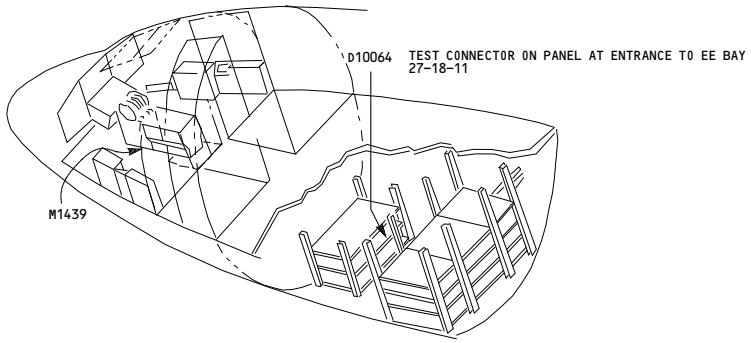

ALL

SPEEDBRAKE HANDLE POSITION INDICATION

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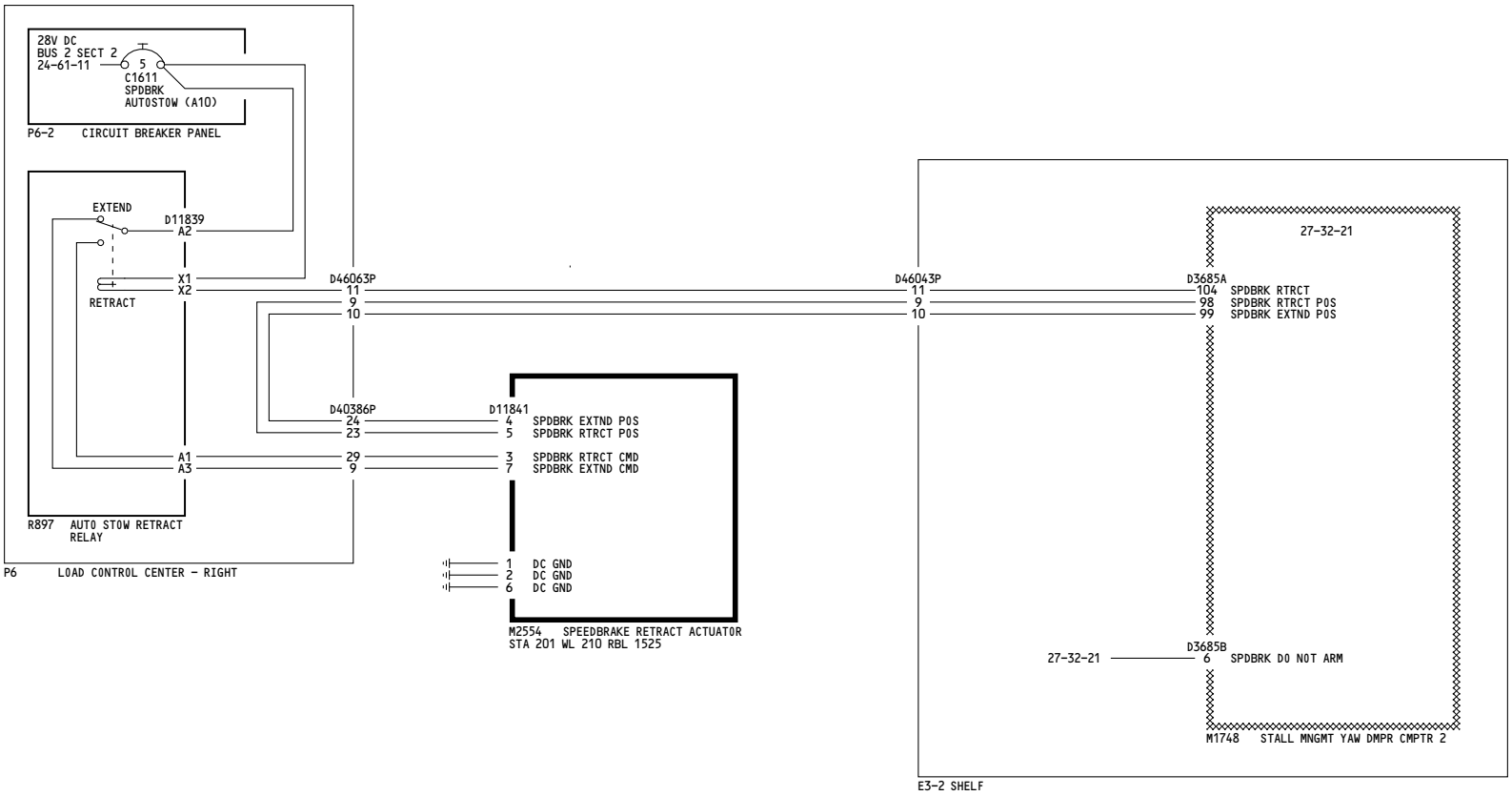

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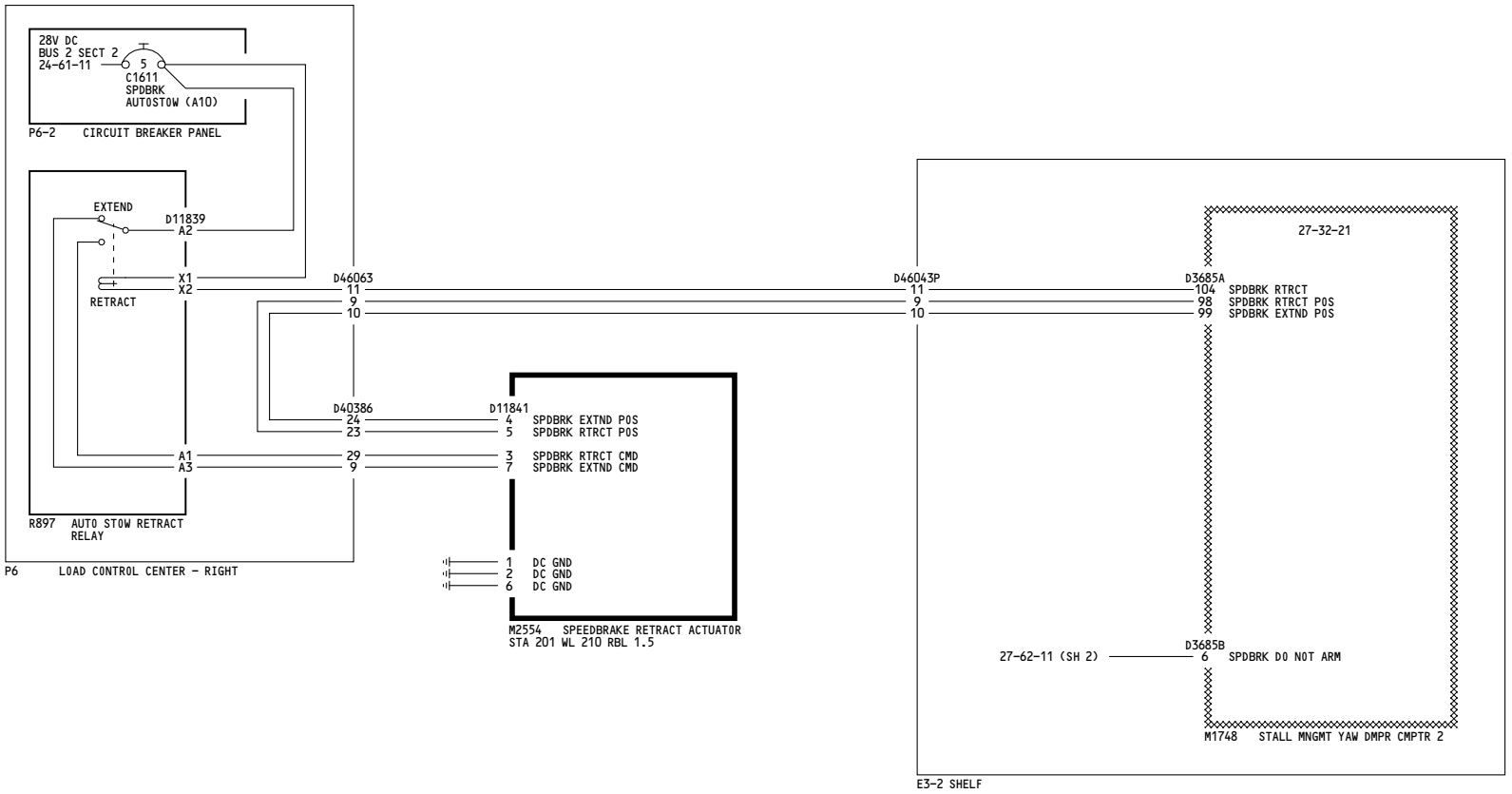

YC001-YC010, YC012-YC030

SPEEDBRAKE AUTOSTOW

Incorporates
PD 0802664

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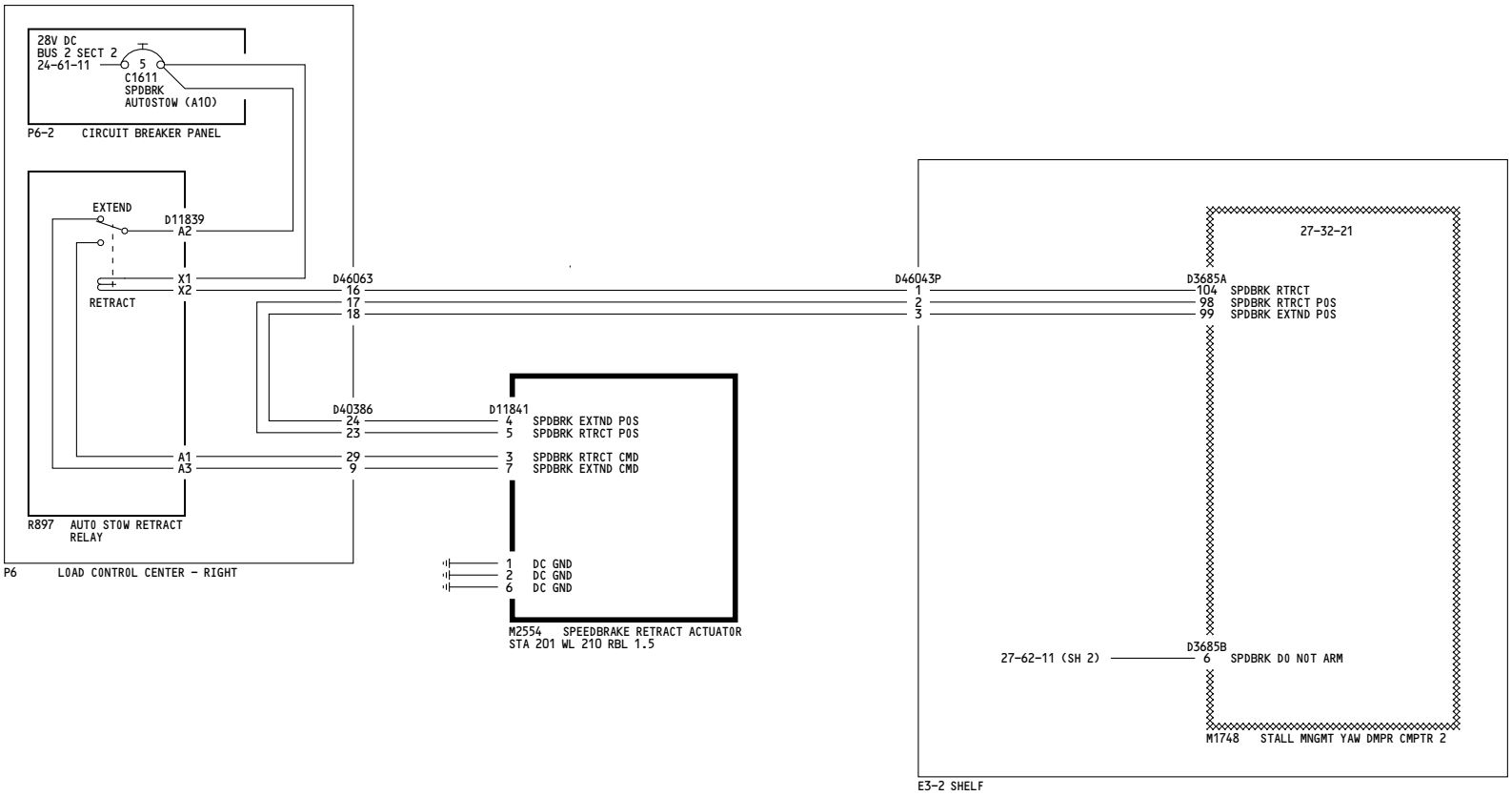

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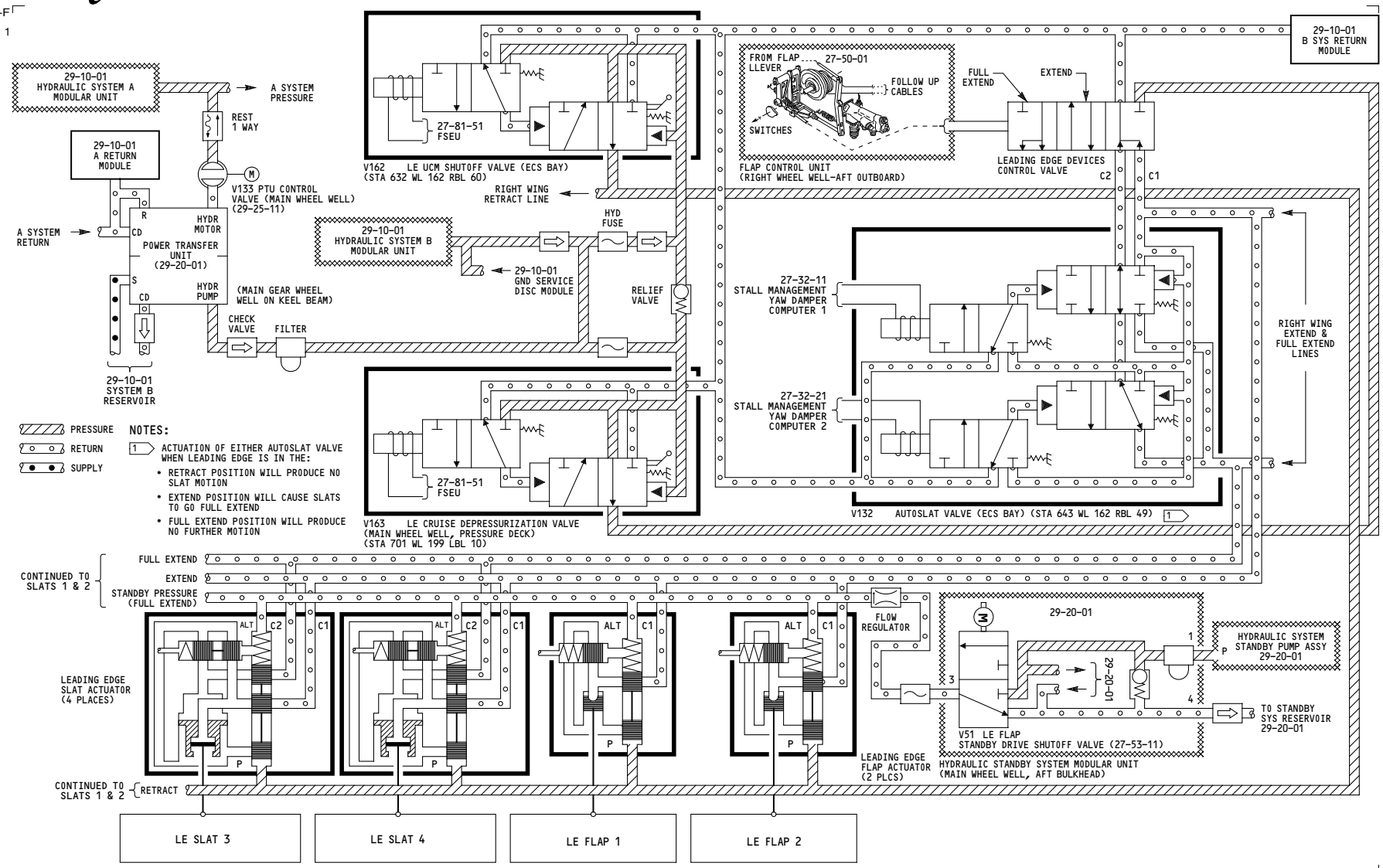

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LEADING EDGE DRIVE AND INDICATION

D280A203

27-80-01

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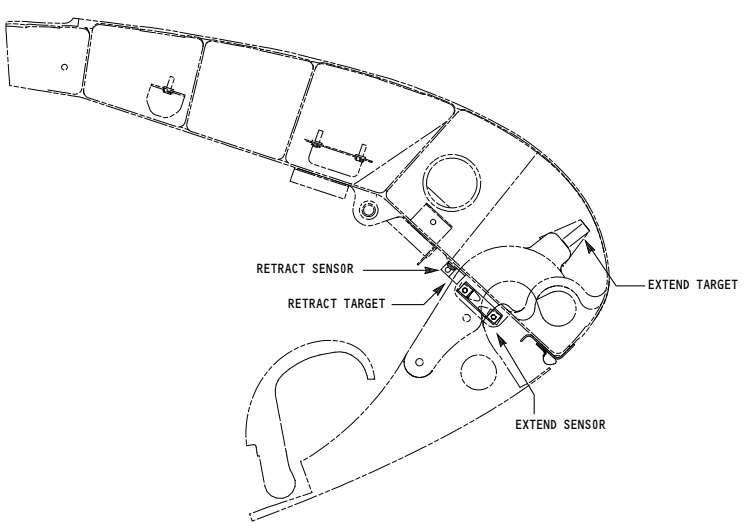
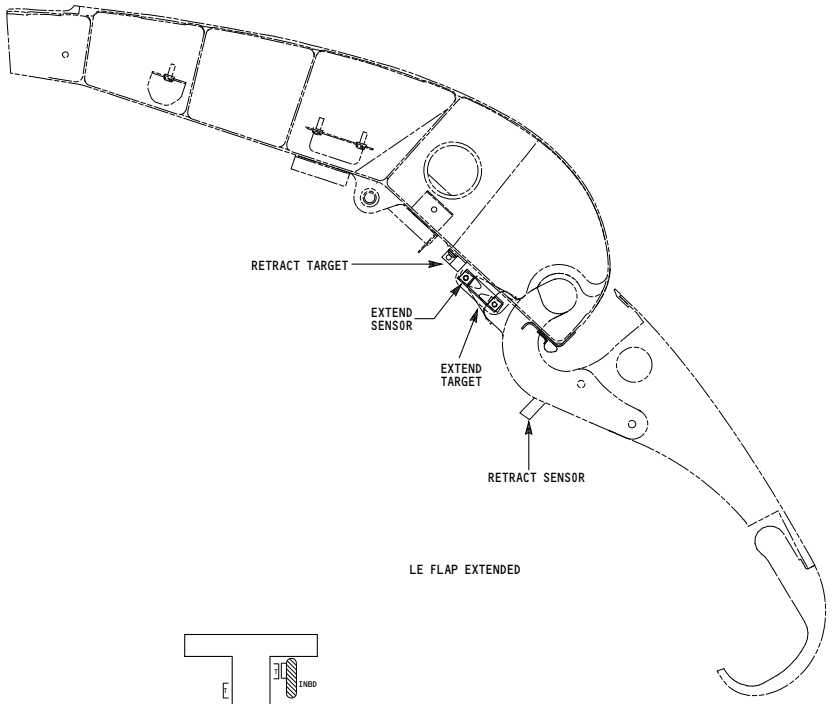
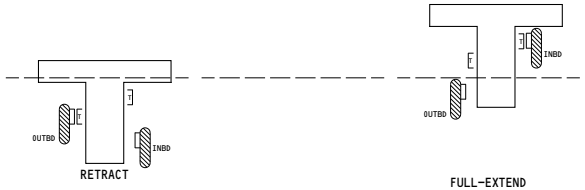


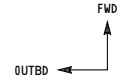
LE FLAP RETRACTED



LE FLAP EXTENDED



SNSR	RETRACT	FULL-EXTEND	IN-TRANSIT
OUTBD	NEAR	FAR	FAR
INBD	FAR	NEAR	FAR



LE FLAP INDICATION PROXIMITY SENSOR/TARGET ARRANGEMENT FOR FLAPS 1 & 2

NOTE:

NORMAL LEADING EDGE DEVICES OPERATION IS CONTROLLED BY THE TRAILING EDGE FLAP POSITION.

A. AS THE TRAILING FLAPS START TO RETRACT:
THE LEADING EDGE FLAPS WILL EXTEND

ALL	LEADING EDGE DRIVE AND INDICATION
	D280A203

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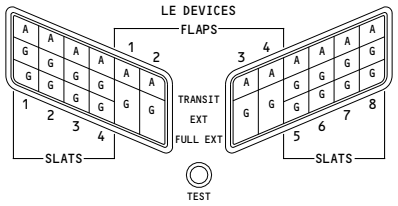
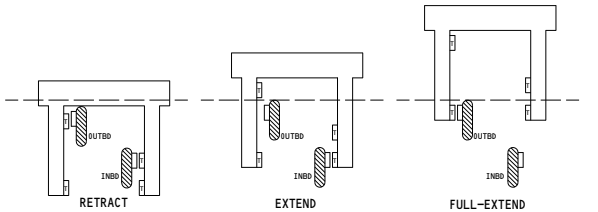


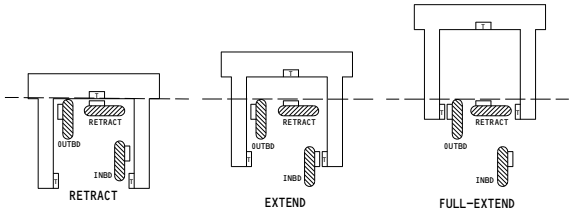
LEADING EDGE FLAP/SLAT
POSITION ANNUNCIATOR
(P5-12, OVERHEAD PANEL)



SNSR	RETRACT	EXTEND	FULL-EXTEND	IN-TRANSIT
OUTBD	NEAR	FAR	NEAR	FAR
INBD	NEAR	NEAR	FAR	FAR

FWD
OUTBD

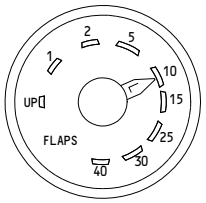
LE SLAT INDICATION PROXIMITY SENSOR/TARGET ARRANGEMENT FOR SLAT 1
(SENSOR/TARGET ARRANGEMENT REVERSED FOR SLAT 8)



SNSR	RETRACT	EXTEND	FULL-EXTEND
OUTBD	FAR	FAR	NEAR
INBD	FAR	NEAR	FAR
RETRACT	NEAR	FAR	FAR

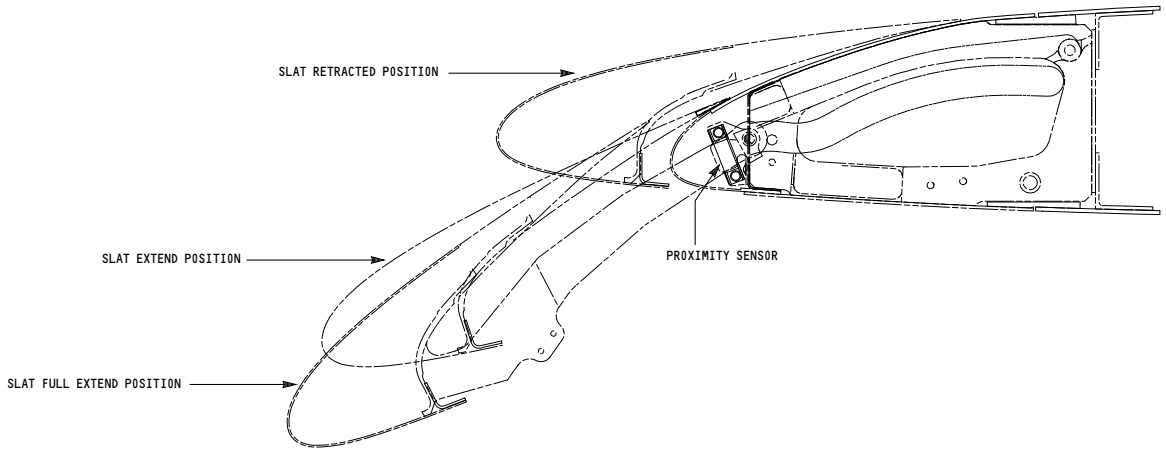
FWD
OUTBD

LE SLAT INDICATION PROXIMITY SENSOR/TARGET ARRANGEMENT FOR SLATS 2 - 4
(SENSOR/TARGET ARRANGEMENT REVERSED FOR SLATS 5 - 7)



LE FLAPS TRANSIT	LE FLAPS EXT

TE FLAP POSITION INDICATOR
CENTER INSTRUMENT PANEL (P2-2)
27-52-11
27-81-31



NOTE:

NORMAL LEADING EDGE DEVICES OPERATION IS
CONTROLLED BY THE TRAILING EDGE FLAP POSITION.

A. AS THE TRAILING EDGE FLAPS REACH 17% OF STROKE TO THE RETRACT POSITION:
   THE LEADING EDGE FLAPS WILL FULLY EXTEND
   THE LEADING EDGE SLATS WILL EXTEND

B. AS THE TRAILING EDGE FLAPS LEAVE THE "5" POSITION:
   THE LEADING EDGE SLATS WILL GO TO THE FULL EXTEND POSITION.

THIS SEQUENCE IS REVERSED UPON RETRACTION.

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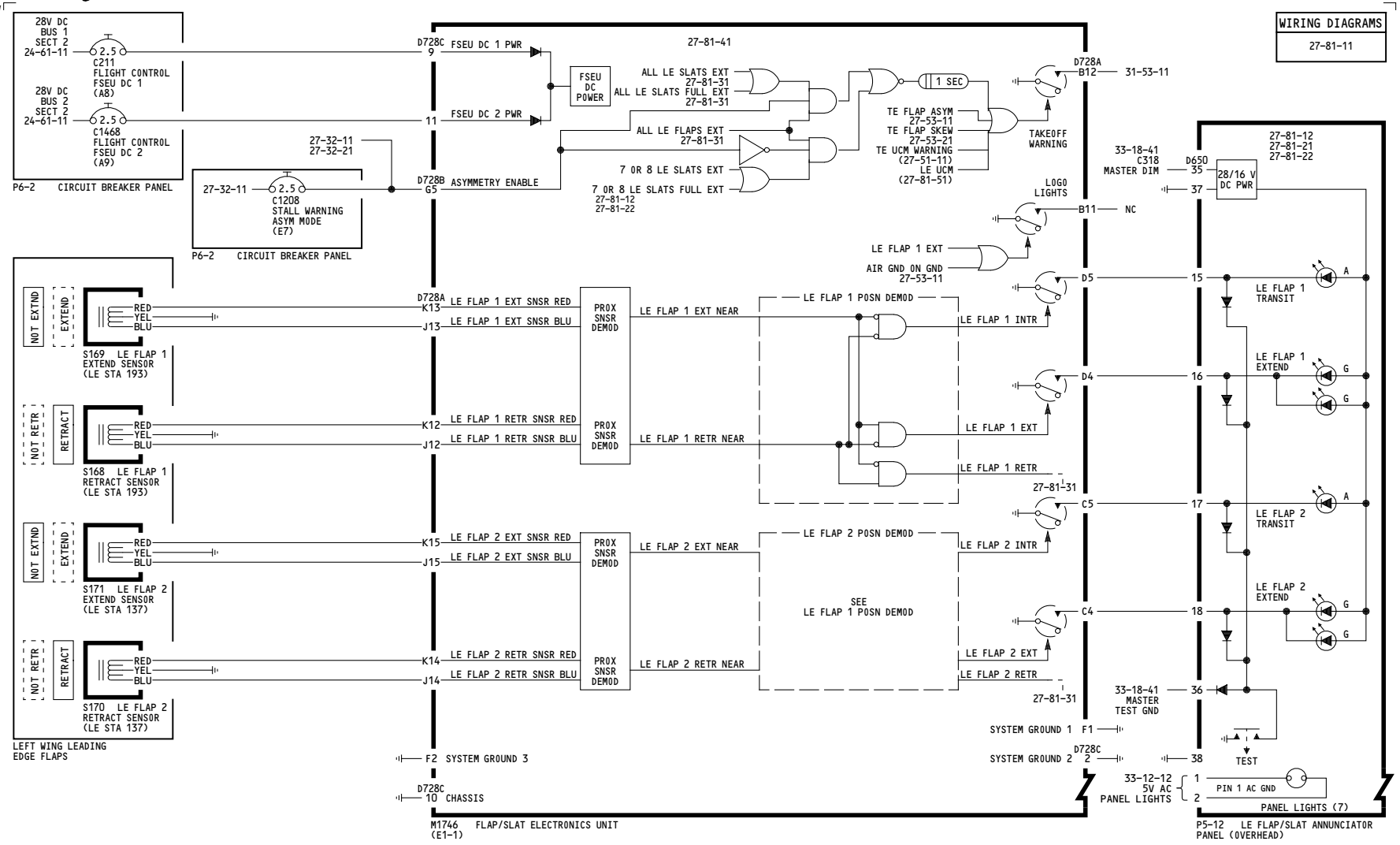

YC001-YK910, YK918, YL401, YM643-YM670	**LEFT LEADING EDGE FLAP POSITION INDICATION**	D280A203

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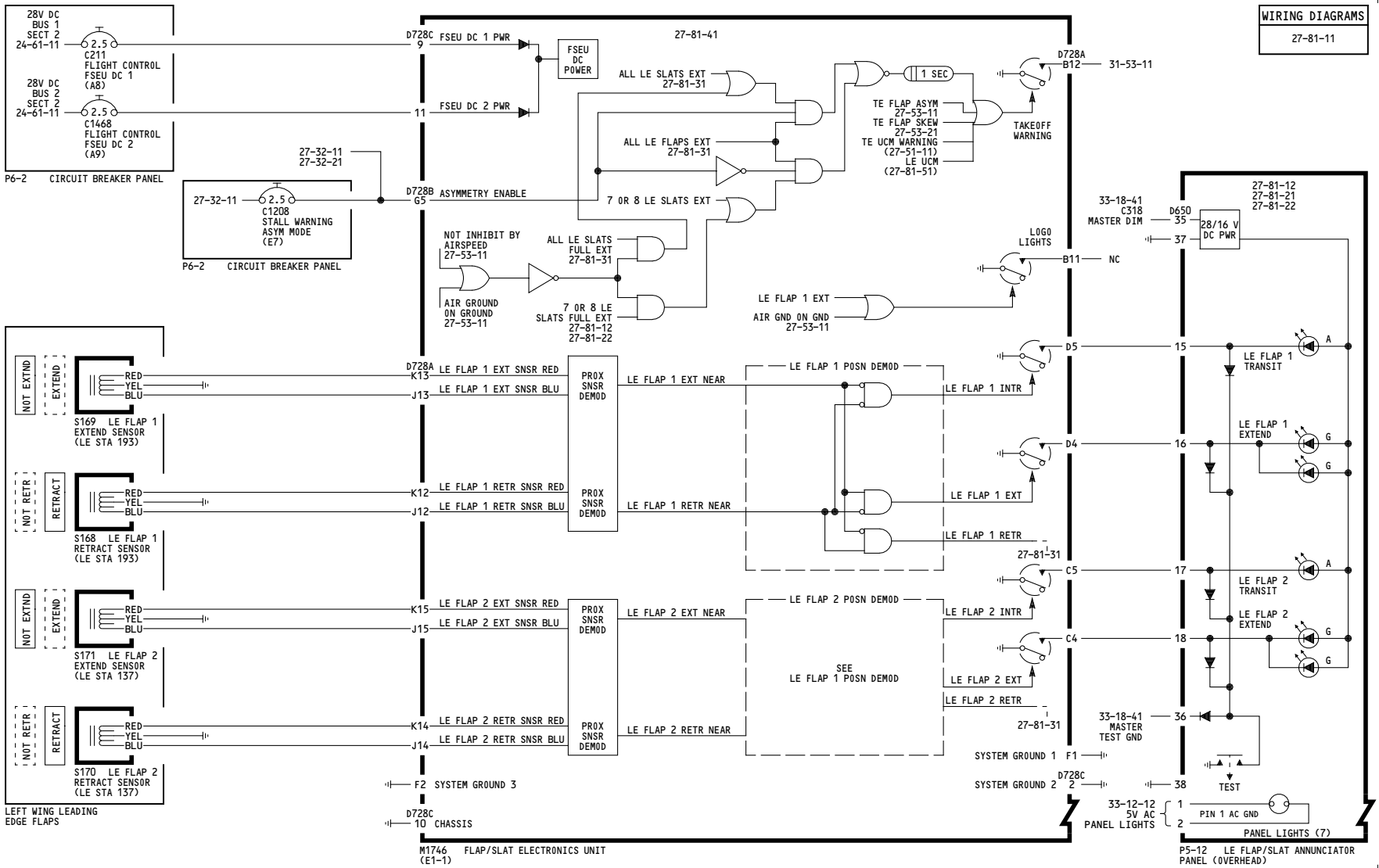

YK911-YK917, YK919-YK920, YL421-YL430

LEFT LEADING EDGE FLAP POSITION INDICATION

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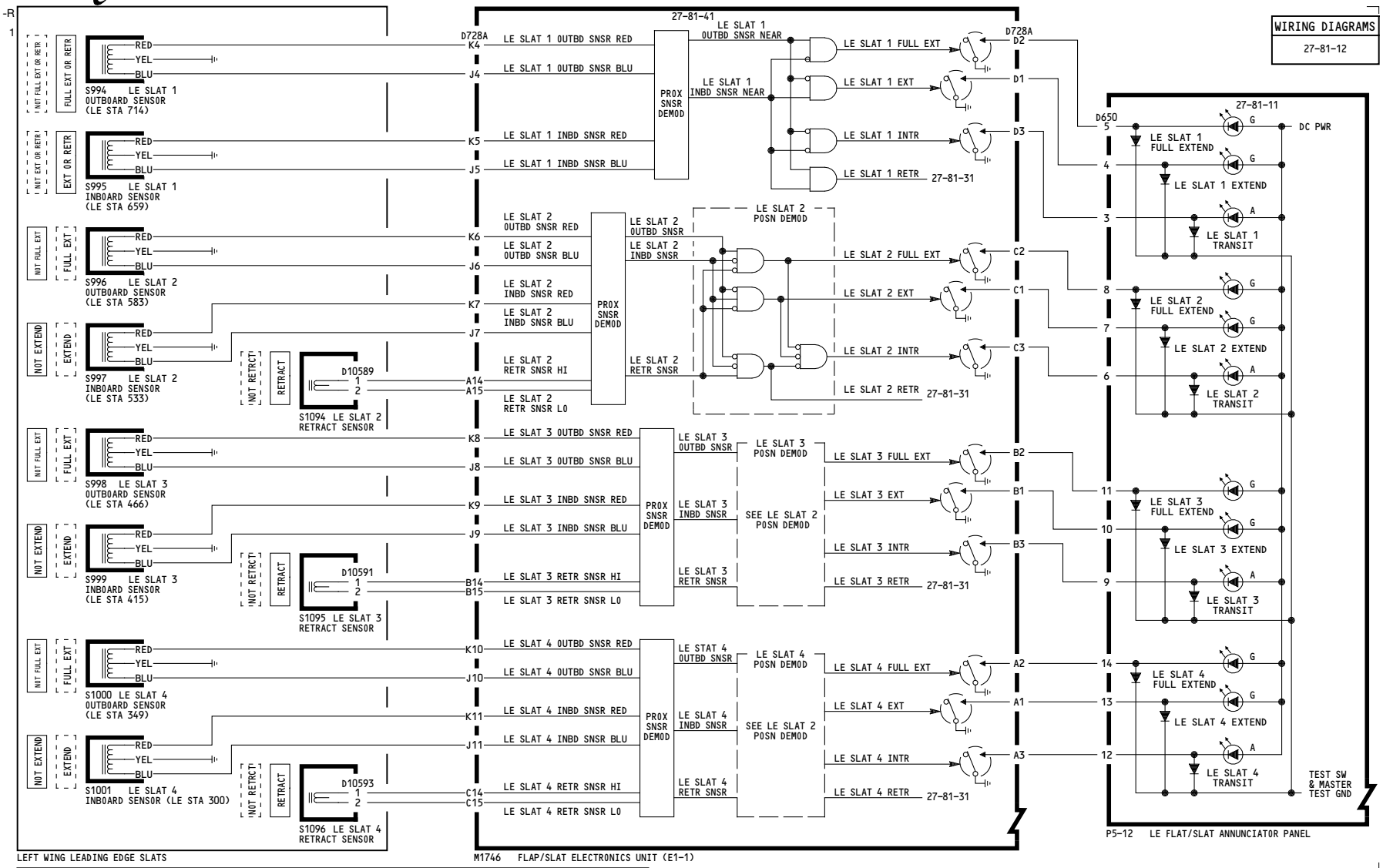

ALL

LEFT LEADING EDGE SLAT POSITION INDICATION

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27-81-12

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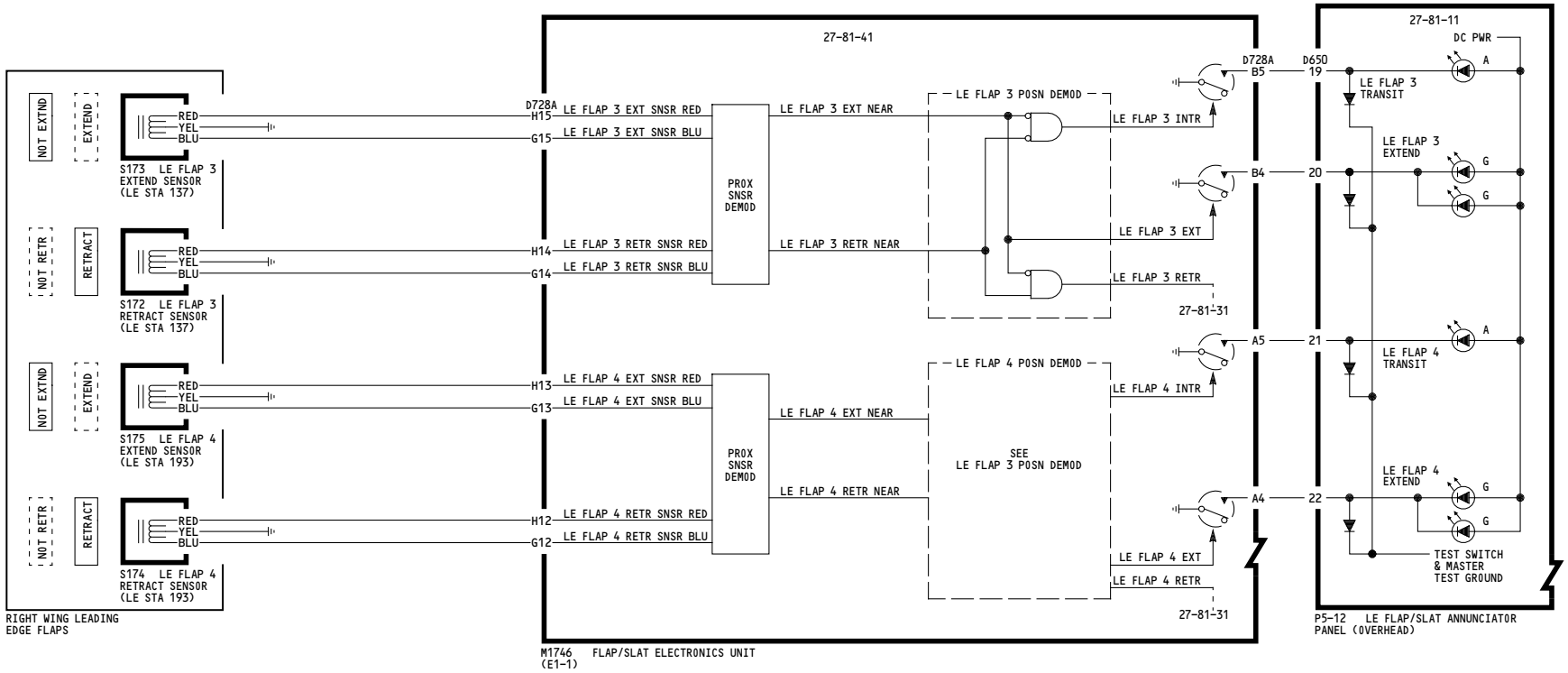

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RIGHT LEADING EDGE FLAP POSITION INDICATION

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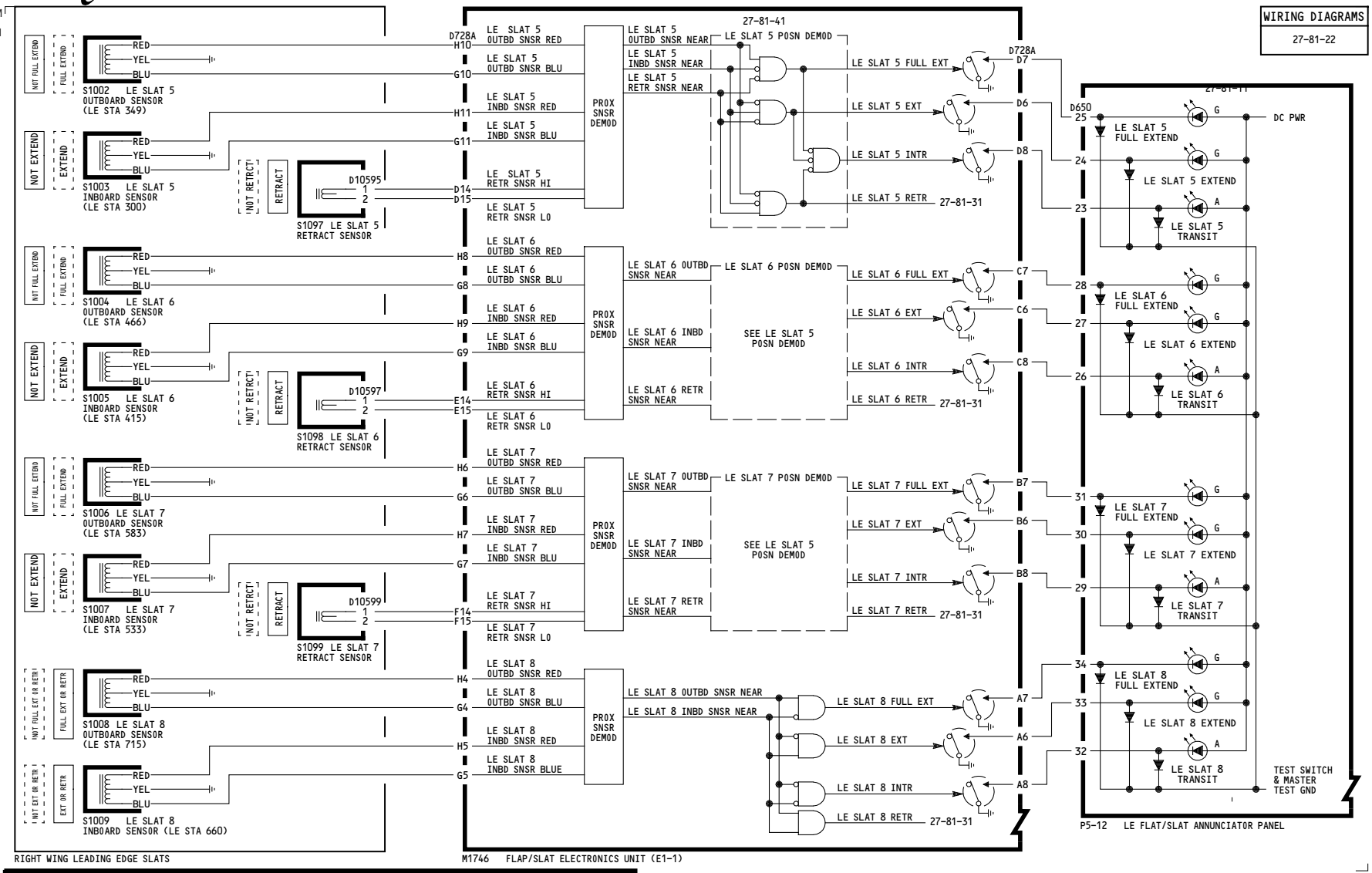

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RIGHT LEADING EDGE SLAT POSITION INDICATION

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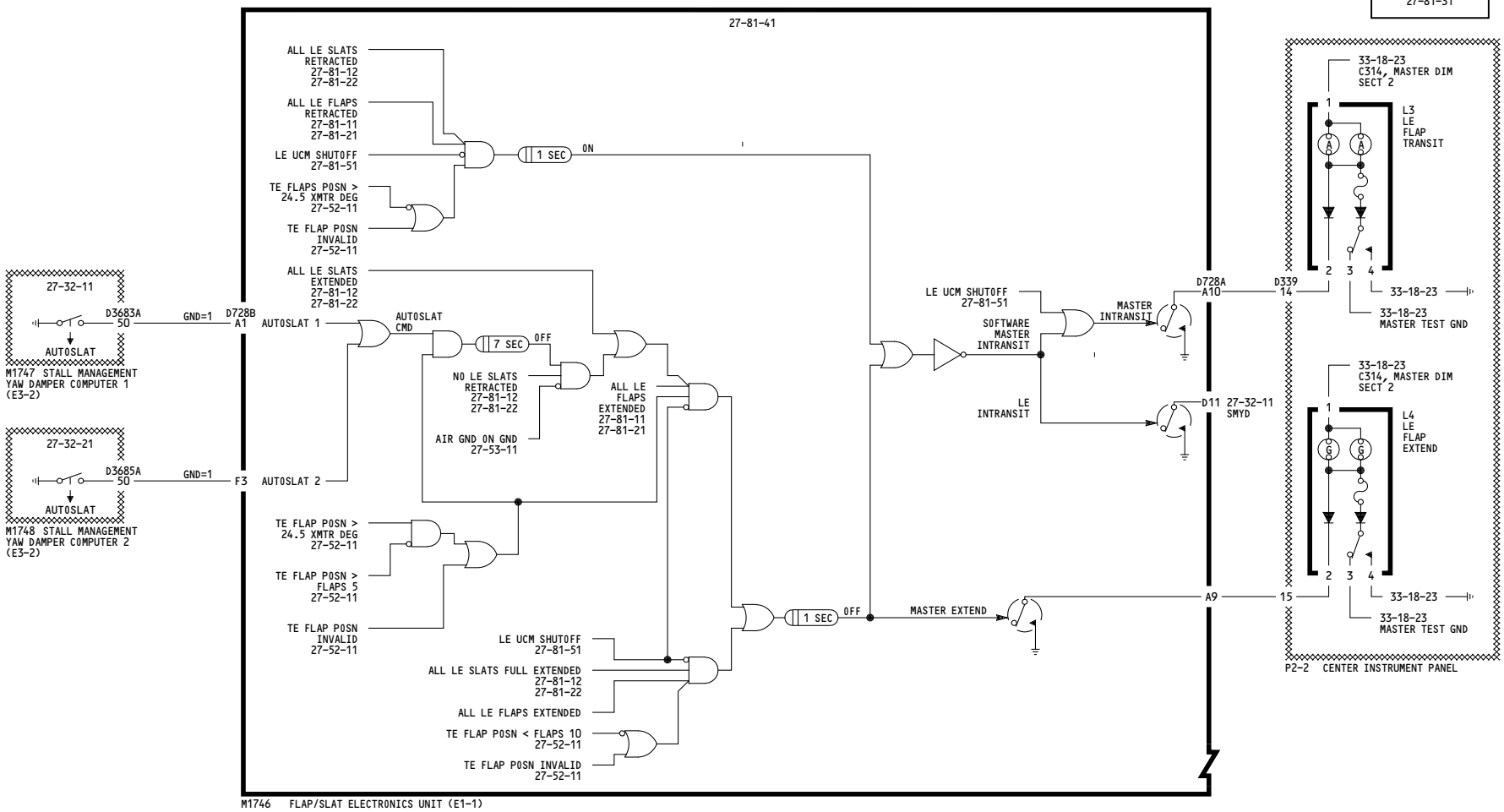
WIRING DIAGRAMS
27-81-31



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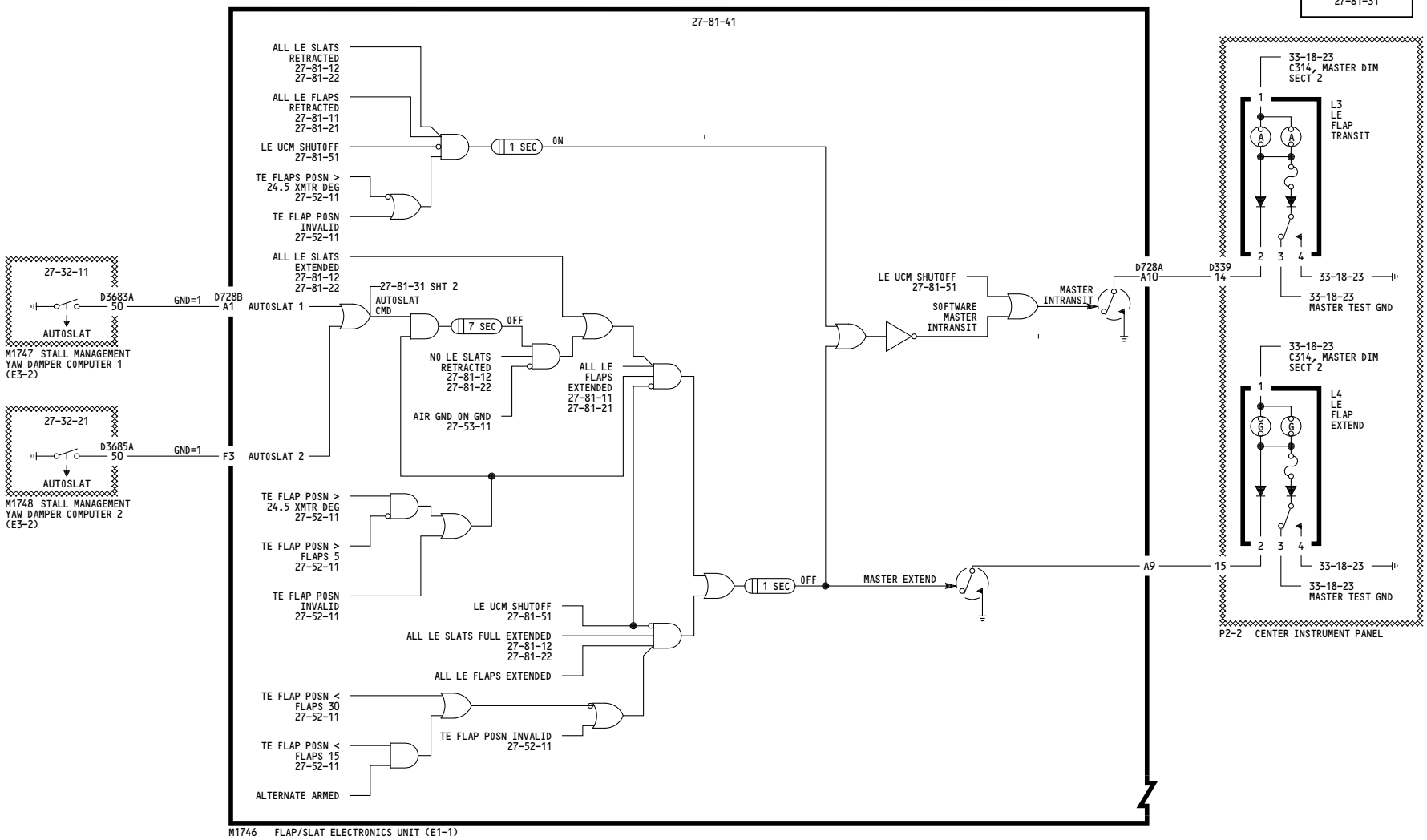
WIRING DIAGRAMS
27-81-31



YK907-YL430

LEADING EDGE FLAPS AND SLATS MASTER INDICATION

D280A203

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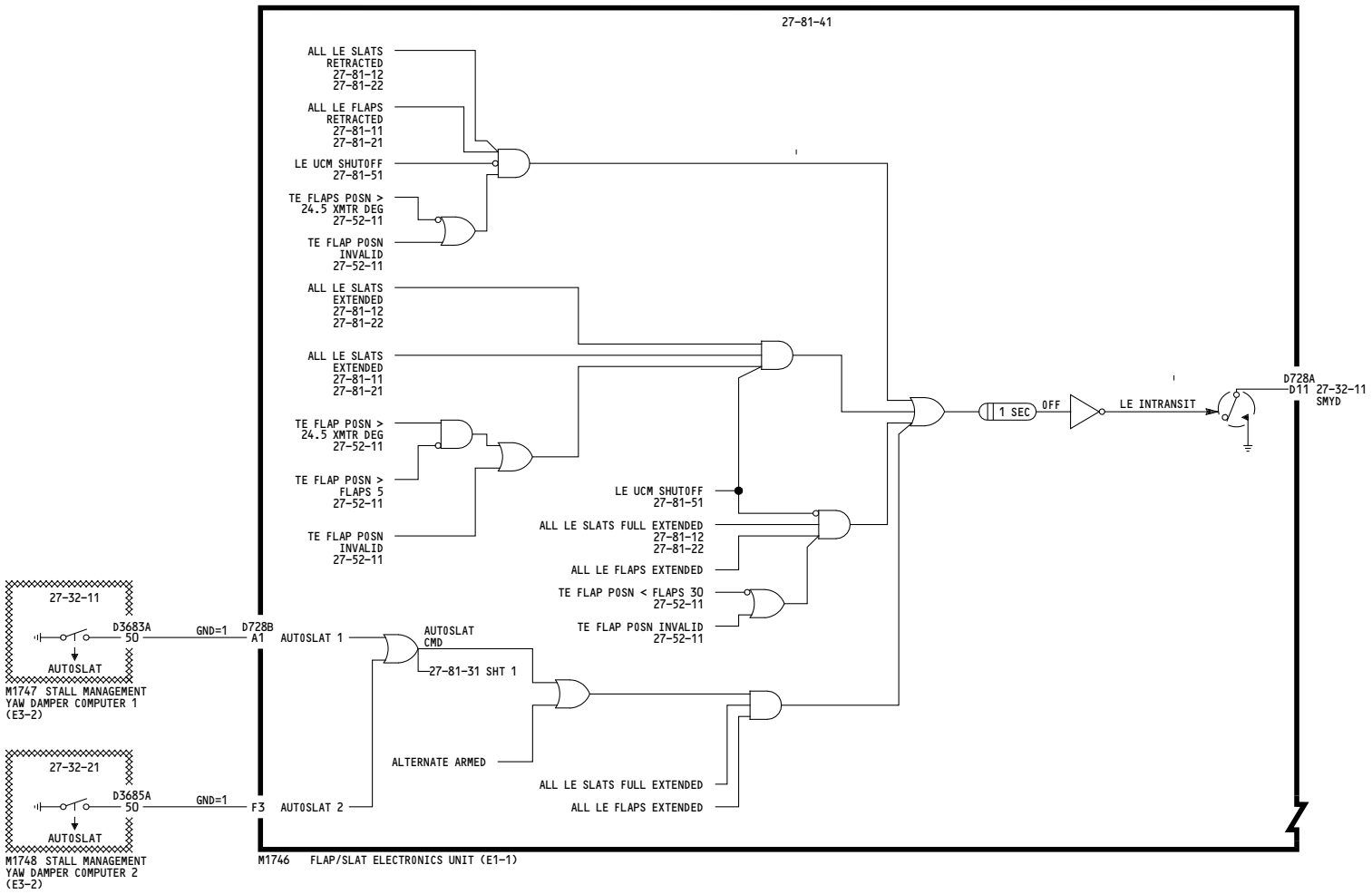

YK907-YL430

LEADING EDGE FLAPS AND SLATS MASTER INDICATION

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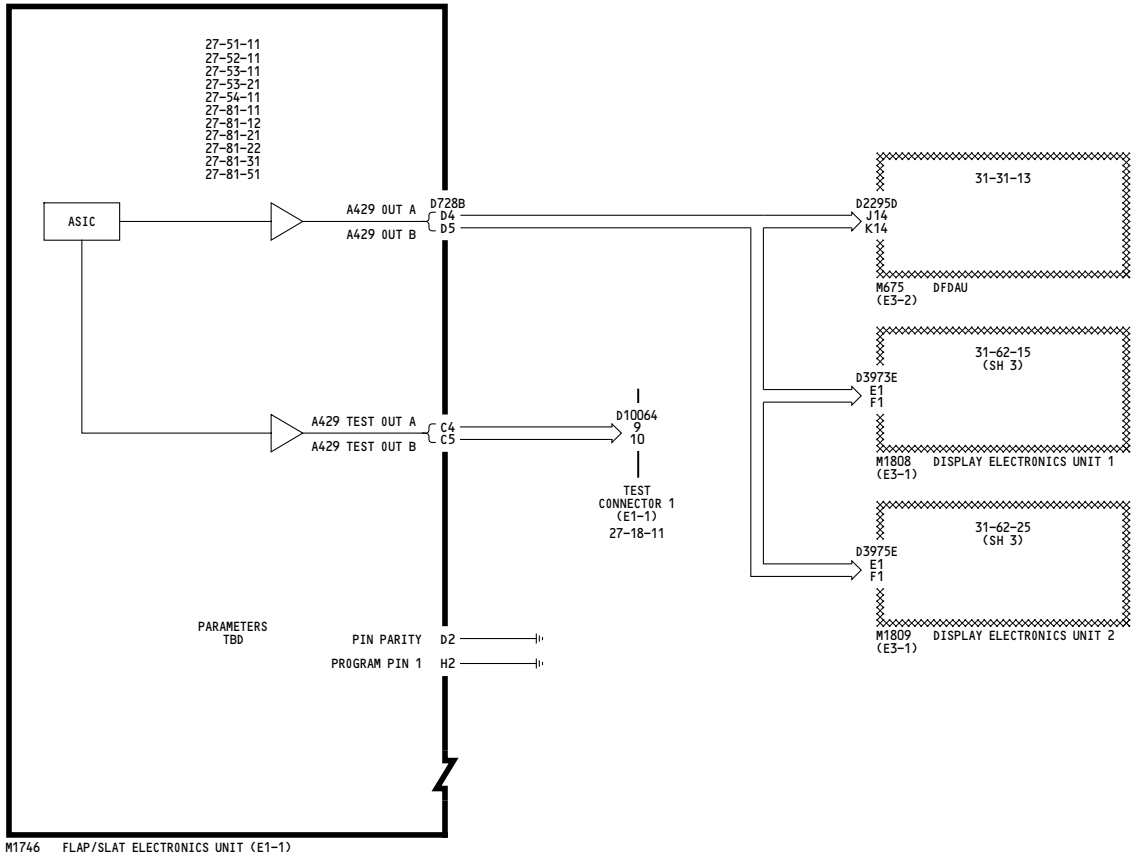

YC001-YK906, YM643-YM670	**DFDAU AND TEST CONNECTOR INTERFACE**
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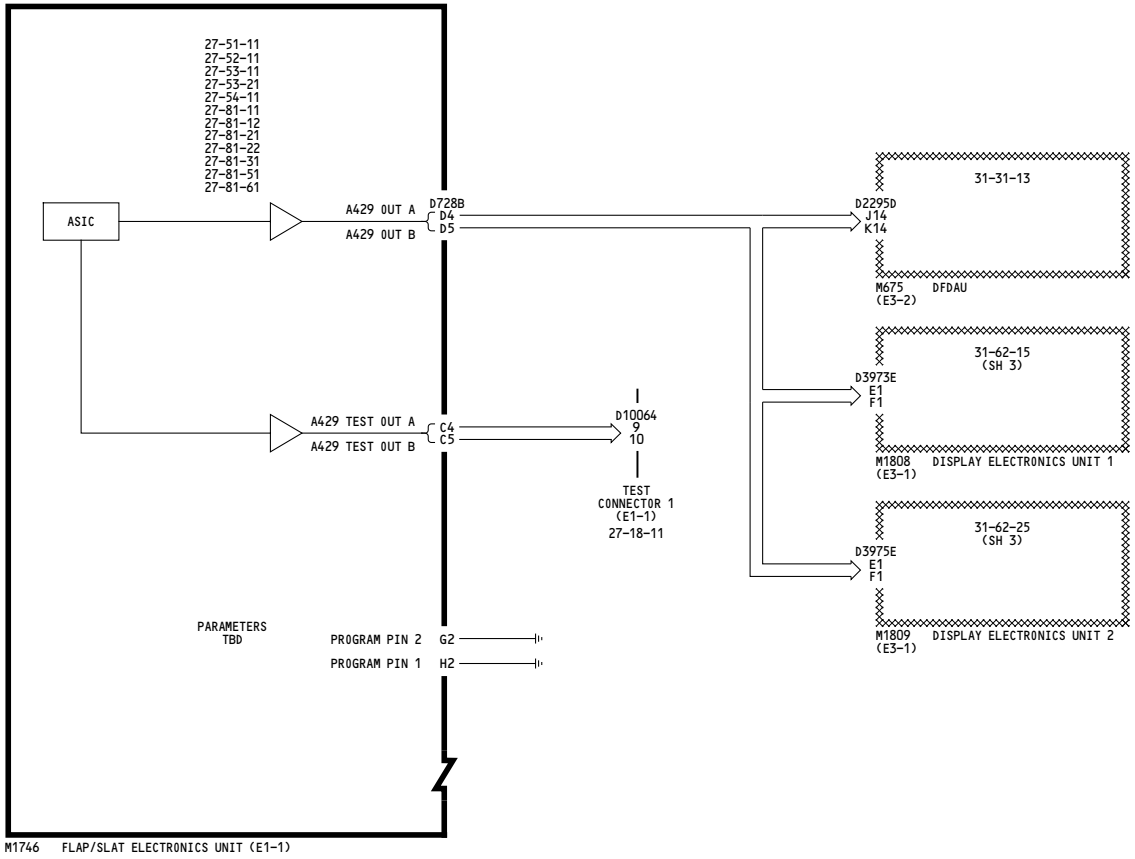

YK907-YL430

DFDAU AND TEST CONNECTOR INTERFACE

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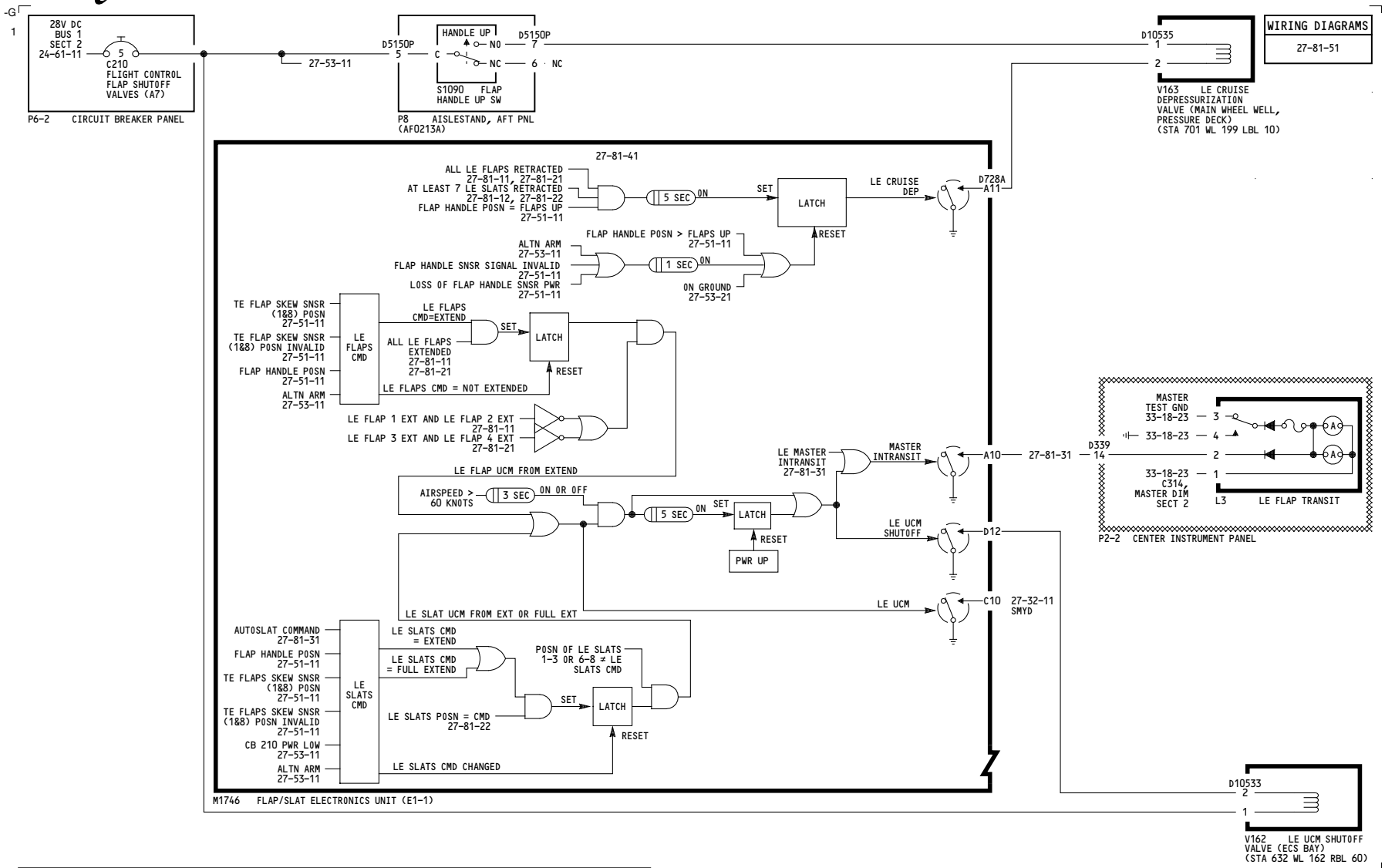

ALL

LEADING EDGE UNCOMMANDED MOTION PROTECTION

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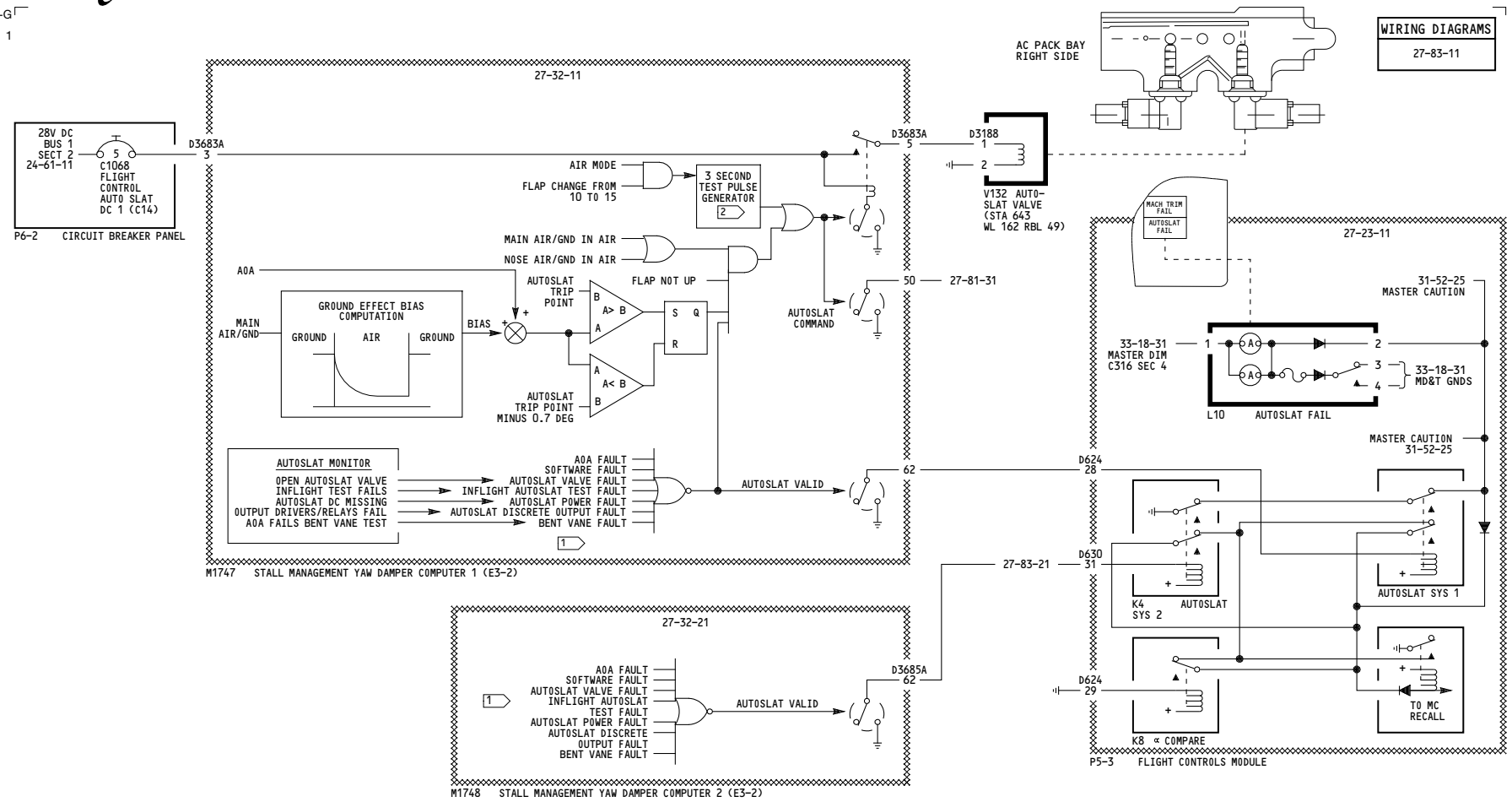

NOTES:

1. INFLIGHT AUTOSLAT TEST FAULT AND BENT VANE FAULT ARE LATCHED IN NVRAM. USE CLEAR AND RETEST MENU OF BITE TO CLEAR THE LATCHES.

2. INFLIGHT AUTOSLAT TEST PULSE. THIS TRIGGERS THE INFLIGHT TEST DURING WHICH AUTOSLAT DISCRETE OUTPUT CIRCUITRY IS CHECKED. FAILURE WILL SET "IN FLIGHT AUTOSLAT TEST FAULT."

ALL	AUTOSLAT SYSTEM NO. 1
	D280A203

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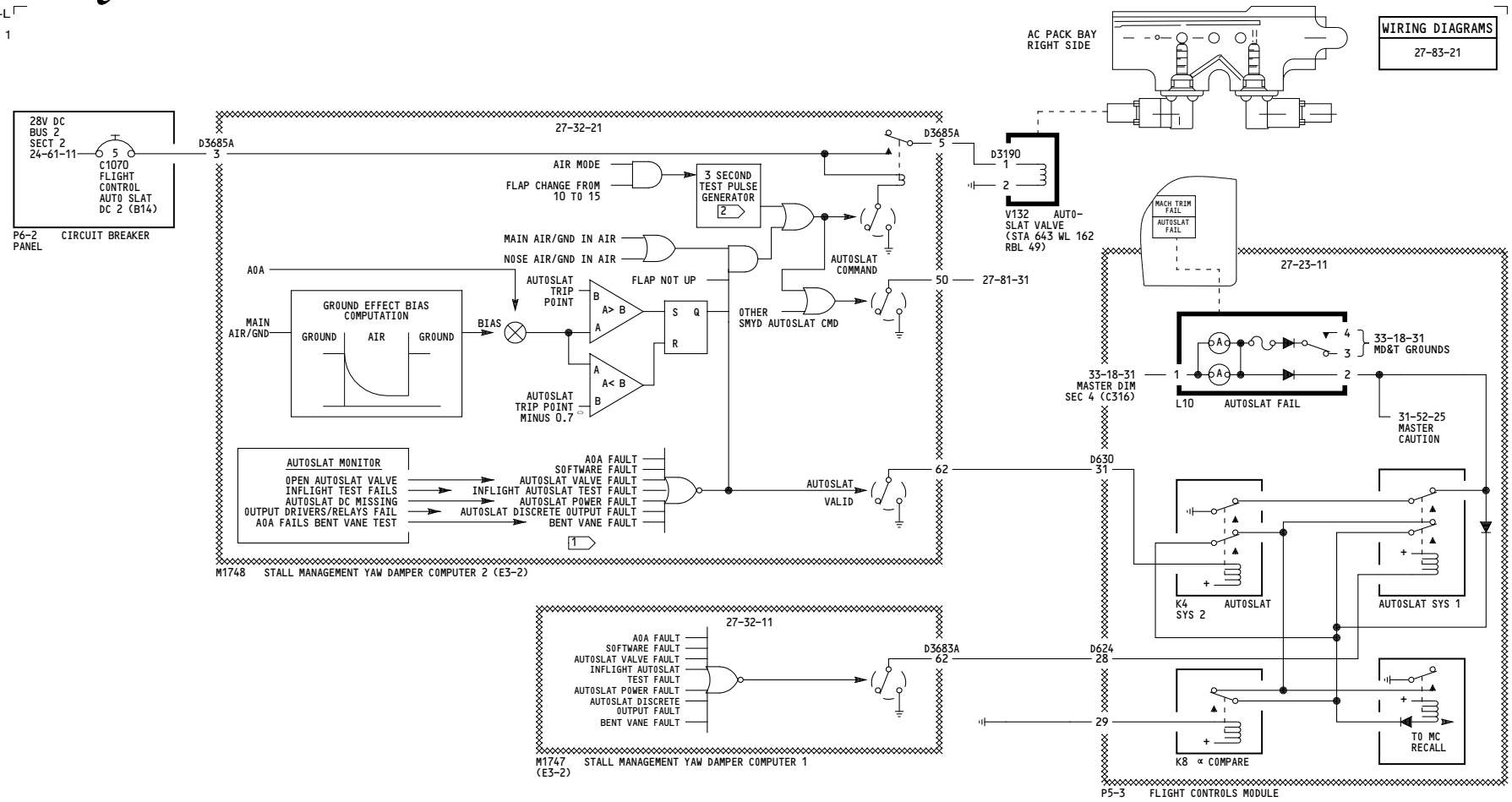

NOTES:

1. INFLIGHT AUTOSLAT TEST FAULT AND BENT VANE FAULT ARE LATCHED IN NVRAM. USE CLEAR AND RETEST MENU OF BITE TO CLEAR THE LATCHES.

2. INFLIGHT AUTOSLAT TEST PULSE THIS TRIGGERS THE INFLIGHT TEST DURING WHICH AUTOSLAT DISCRETE OUTPUT CIRCUITRY IS CHECKED. FAILURE WILL SET "INFLIGHT AUTOSLAT TEST FAULT."

ALL	**AUTOSLAT SYSTEM NO. 2**
	D280A203

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